CALIFORNIA STATE UNIVERSITY, REF DESK REF DESK REF DESK REF DESK

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California State University, Fullerton P.O. Box 6850 800 N. State College Blvd. Fullerton, CA 92834-6850 (714) 278-2011 I am delighted to welcome you to California State University, Fullerton. Every student who makes a commitment to pursue a university education is faced with many choices and decisions as they plan their future—the possibilities are endless. At Cal State Fullerton, we build bright futures by providing the best foundations to prepare our students for success—in their personal lives, academic pursuits and career objectives. The unique nature of our academic and student support programs are linked to develop the critical skills—teamwork, leadership and citizenship—the values and the professional ethics for students to realize their dreams and goals and make a meaningful contribution to society.

Cal State Fullerton offers students the experience of a large, dynamic and diverse university, with an enrollment of more than 25,000, combined with the comfortable atmosphere of a small college. Our outstanding faculty members have distinguished reputations in their fields and take pride in developing close mentoring relationships with students. It is our mission to provide a learning environment where students and faculty members can work closely together on programs, research and projects. We want to ensure that each student succeeds, by receiving the finest academic experience possible both in and out of the classroom.

Our university also takes great pride in the fact that we provide the opportunity to make a university education a reality for many students who may not have thought it possible. In fact, it is our goal to provide every freshman student with a successful transition to college.

You will quickly discover that student support is just as important as the academic and personal goals we encourage our students to pursue. Take the time to fully acquaint yourself with the many networks of support services we offer. Get engaged in our university community and you will be assured of a rich and rewarding college experience.

Since 1959 when classes first started, Cal State Fullerton has grown from a small college to a leading regional university that has prepared more than 125,000 graduates. In fact, 80 percent of our alumni live and work in Southern California. Many have become leaders in business, industry, government, politics, education and the arts. Their contributions to the communities they serve following graduation is testimony of our success.

The following pages offer a glimpse of our vital, dynamic and diverse campus. Take a look at each of our schools, the outstanding programs they offer, and listen to what our university community wants to share with each of you. I think you will see for yourself why our goal and vision for Cal State Fullerton—as the nation's best public comprehensive university—provides the opportunity for our students to shine.

Milton A. Gordon

President

California State University, Fullerton



"I had my choice of another major large university or Cal State Fullerton—this was the hardest decision of my life so far. The Theatre Department, the smaller, 'more comfortable' campus and a greater opportunity to practice my art led me here—and I was completely right."

CHRISTINE CUMMINGS
Theatre Arts

## School of the Arts

"More than anything else, the excellence of our programs can be seen in our people—the faculty, staff, students and graduates. Their presence is perhaps the strongest recommendation to be made for pursuing the arts at Cal State Fullerton."

DEAN JERRY SAMUELSON
School of the Arts





- The Art Department offers a unique program in animation and entertainment arts, receiving direct instruction each week via video link from Warner Bros. Feature Animation. Cal State Fullerton is also one of only 18 campuses in the world to be included in the Walt Disney Co.'s "Disney Partners in Education Program."
- The Grand Central Art Center in Santa Ana's Artist Village features studio and living space for graduate art students. The center also includes a gallery, printmaking workshop, restaurant, small theatre and extended education classrooms.
- If you picture yourself on the stage, our theatre and dance students perform throughout the year, and our graduates go on to Broadway and national touring companies to perform in such hits as "Rent" and "Les Miserables." Thousands of people attend our annual "Front & Center" event, which features our student performers on stage with such notables as retired Gen. Colin L. Powell, Bill Cosby and Walter Cronkite.
- Music students have an opportunity to audition for the Pacific Symphony Institute Orchestra, which is the premier training orchestra for young musicians in this region. The orchestra, a vital outreach of Cal State Fullerton's Music Department, is conducted by the assistant director of the Pacific Symphony Orchestra.

- Southern California business leaders come to campus to lecture and hire our students for internships and to recruit our graduates for their companies. We have the fifth largest undergraduate business program in the nation, the largest in California, and our undergraduate program is one of only 330 in the nation accredited by the American Assembly of Collegiate Schools of Business.
- A student team won first place in a General Motors marketing competition—for the third time. A marketing professor and her students proved the best out of 84 universities nationwide.
- Students can gain real-life experience by participating in the university's Small Business Institute. Through the program, students and faculty mentors have assisted more than 700 local area businesses and won 39 prizes for outstanding case work from the U.S. Small Business Administration.



# School of Business Administration and Economics

"My whole experience with the entire business school was fantastic. The professors are awesome—they really cared that their students had an understanding of the outside world and could apply classroom theory to real-life business scenarios. The exposure that I received through my classes and the General Motors marketing internship opened the door to the position I was offered before I graduated."

VERONICA ZUNIGA, MARKETING '98 Field Associate, Adventure Partners

"Welcome to the nationally accredited School of Business Administration and Economics—home of the fifth largest undergraduate business program in the United States. The school leads the region in meeting the needs of its diverse student body and provides advanced training for business success in today's global economy."

DEAN ANIL K. PURI
School of Business Administration
and Economics



"The reputation of the Communications Department is what attracted me. I am very pleased with the quality of the faculty. They are willing to counsel students about career objectives. Because they are so connected with the business world, their counsel is relevant and applicable."

ANNETTE PEEPLES
Communications

# School of Communications

"The School of Communications provides an excellent learning environment with nationally recognized faculty and modern laboratory facilities. Students gain hands-on experience in settings such as computerized writing labs, television studios, internship sites, a speech and hearing clinic, presentation lab, and a daily newspaper production complex."

DEAN RICK D. PULLEN
School of Communications



- Students in the Communications Department have more than 650 internship sites to select from for opportunities to work in real-life situations. Taking part in one of the largest student internship programs in the nation often leads to a job after graduation.
- The Daily Titan, both printed and on the Web, is one of the nation's top-rated student newspapers. The online version was rated best in the country in 1998 by the College Press Network.
- A student task force plans and implements the annual Communications Week, which brings well-known professionals and outstanding alumni to campus. Students interact with the professionals and attend lectures and workshops in order to prepare themselves for careers in the communications industry.
- Students gain valuable experience when they assist in the Center for Children Who Stutter and the Speech and Hearing Clinic.





- Undergraduate and graduate students can work on research projects with faculty members and professionals in the field, thanks to industry funding that continues to grow.
- Partnerships with industry leaders in communications, software, manufacturing, semiconductors, aerospace and pharmaceuticals enable students and faculty members to collaborate on funded projects of mutual interest with the firms' engineers and computer scientists.
   Students gain invaluable practical experience and develop the skills to work effectively in an interdisciplinary team environment.

"When I changed majors, the Computer Science Department staff members really went out of their way to welcome me to the program and to get to know me on a first-name basis. Our student club, the Association for Computing Machinery, has been really helpful in setting up interviews and information days with corporate employers, as well as promoting social events where we have the opportunity to meet students with similar interests and goals."

JOHN PACELA Computer Science

# School of Engineering and Computer Science



"Our school is committed to providing students with a thorough preparation in fundamental principles and helping them gain the practical experience to apply their knowledge to real-world projects. By blending theory and practice, we prepare our students for success in exciting and rewarding careers in engineering and computer science."

ACTING DEAN R. D. ROCKE School of Engineering and Computer Science

"I had an extensive background as an electrical engineer in the aerospace industry when I decided to make a career change. The faculty are top notch! They are experts in their field, have outstanding academic credentials, and many have extensive professional experience. They exemplify both the theoretical and practical application of civil engineering to students."

ERNIE LAU, M.S. CIVIL ENGINEERING '98 Responsible Engineering Authority, Hughes Space and Communications Company "I came here because my role model, my sixth grade teacher, graduated from Cal State Fullerton. The university is well-known for its excellent elementary teacher-training program. I really enjoy learning from awesome professors. The small campus atmosphere makes you feel you belong here."

MI CHONG KIM
Child and Adolescent Studies

# School of Human Development and Community Service

"Using research and practice to enhance the community, the school's purpose is to provide a quality education that makes a difference in the lives of students, and through them, their families, organizations and communities. I welcome you to the HDCS family and the opportunity to make a lasting contribution to the world in which we live."

DEAN SORAYA COLEY School of Human Development and Community Service





- Our award-winning programs prepare more than 70 percent of the teachers and administrators in the area and place graduates throughout the U.S. and the world. And, we're the only teacher-training institution in Orange County that is accredited by the National Council for Accreditation of Teacher Education, the most prestigious accrediting organization in the country.
- Students who want to pursue careers in teaching/coaching, fitness, corporate wellness, sports medicine/athletic training, older adult exercise/rehabilitation, or in various areas of community health get first-class preparation here. Quality teaching and well-equipped laboratories help to assure that our graduates will be highly competitive within the job market or prepared to pursue advanced degrees.
- We have graduated more than 8,000 child development and human service professionals, nurses and counselors.

"Cal State Fullerton has an excellent Political Science Program. Since I wanted to complete my undergraduate studies in Southern California, the campus's close proximity to home was a plus. I like the ethnic diversity of the student body, the variety of clubs and organizations open to all students, and the high academic expectations and challenges."

CHRISTINA GALLEGOS
Political Science



# School of Humanities and Social Sciences



- Our American Studies and Psychology departments are among the nation's top-ranked programs in their disciplines.
- Our new anthropology research and teaching facility is one of the country's best of its kind. It houses a teaching museum with public exhibits, a computer lab with applications used by the business community, and a visual anthropology lab with digital video and multimedia production capabilities.
- More than 3,000 interviews have been conducted by oral history students, who also serve as researchers and editors. Our Oral History Program was featured recently on a CBS "60 Minutes" segment.

"In addition to learning with our outstanding faculty in formal classroom settings, students have the opportunity to collaborate with them on research, service learning and publication in our nationally recognized student research journals. Students and faculty members interact in less formal ways through involvement in our many student organizations and through advising and mentoring relationships."

DEAN DONALD S. CASTRO School of Humanities and Social Sciences "The Student Health Profession Association, of which I am president, is what attracted me. I like the Science Laboratory Center, numerous research opportunities, the smaller classes and minimal competition, which I feel cannot be found at any other university. I also like the friendly attitude of the students and faculty."

BENJAMIN JAVAD KAVOOSSI Biochemistry



# School of Natural Science and Mathematics

"We provide a complete educational experience to all students through a careful mix of instruction—both in the classroom and laboratory—with research. We view research experience for students as an essential and necessary component in the learning of science."

DEAN KOLF O. JAYAWEERA School of Natural Science and Mathematics



- If you want to be a doctor or health professional, Cal State Fullerton is for you. During the last 20 years, our Health Professions Committee has achieved a remarkable 85 percent acceptance rate for our graduates who were recommended to health professions schools. The national average is about 30 percent.
- Our school has been so successful at preparing undergraduates who go
  on to receive doctorates in science and engineering that we're ranked as
  one of the top four in the country, among those that give master's degrees.
- Our student success and admission to graduate programs is supported by national grant-funded programs, such as Research Experience for Undergraduates, Minority Scientists Development, Minority International Research Training, and Minority Access to Research Careers.
- Visits to the State Capitol by our students and faculty members showcase the undergraduate research programs in mathematics and science to members of the California Legislature.

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Center for International Business	Associated Students
Center for Molecular Structure	Association for Intercultural Awareness
Center for Nonprofit Sector Research	Camp Titan
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Developmental Research Center	Legal Information and Referral
Decision Research Center	Titan Student Union
	Associated Students Recreation Sports
Family Business Council	Intercollegiate Athletics
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# academic calendar

Please note: This calendar is not intended to be construed as an employee work calendar.

SUMMER SESSION 1999	2000
goon, Probation and Dies willingston	January 3
June 1  Tuesday Instruction begins.	Monday Winter recess ends. Semester ends; grade
ruesday mistraction begins.	reports due. THE
July 5	Addicinic Advisement Policy
Monday Independence Day observed - Campus closed	INTERSESSION 2000
August 2	January 3
Monday Initial period for filing applications for	
admission to the following spring semester	January 17
begins.	Monday Martin Luther King, Jr. Day - Campus
August 20	closed.
Friday	riud
	January 28  Friday
FALL SEMESTER 1999	Finday
August 19	SPRING SEMESTER 2000
Thursday Academic year begins.	
Average 22	January 26
August 23  Monday Instruction begins.	Wednesday Semester begins.
	January 31
September 6	MondayInstruction begins.
Monday Labor Day - Campus closed.	February 12
September 9	SaturdayLincoln's Birthday - Campus open.
Thursday Admission Day - Campus open.	
September 17	February 21  Monday
Friday	Campus closed. 13 Pai uramana desarra
October 12 Tuesday Columbus Day - Campus open.	March 27-31  Monday-Friday Spring recess - Campus open but
ruesday Columbus Day - Campus Open.	
November 1	
Monday Initial period for filing applications for	
admission to the following fall semester begins	Monday Instruction resumes.
November 11	May 19
Thursday Veterans Day - Campus open.	FridayLast day of classes.
November 22-26	May 22 Ma
Monday-Friday Fall recess - no classes. Campus open 11/22-2	4; Monday Examination preparation (A.M.).
Campus closed 11/25-26.	May 22-27
December 10	Monday-Saturday Semester examinations.
Friday Last day of classes.	as a second Addieses and a second to no hall aggs
Francis Listen e Laboratori e pro- cond-copy (1965)	May 27
December 13  Monday Examination preparation (A.M.).	SaturdayCommencement Exercises.
Historian for New Average and Construence programs - contract of	May 29
December 13-18	Monday Memorial Day - Campus closed.
Monday-Saturday Semester examinations.	NAC SALES
December 20	May 30-June 1 Tuesday-ThursdayEvaluation days.
Monday Winter recess begins.	ruesday-ritursday
December 24-31	June 2 June 2
Friday-Friday Holiday break - Campus closed.	FridaySemester ends; grade reports due.
inday inday intenday ordan company stoods	The state of the s

SUMMER SESSION 2000	2001
May 30	January 1
TuesdayInstruction begins.	Monday New Year's Day - Campus closed.
July 4 (32.3)epopugadánxiisiosog s	January 2
Tuesday Independence Day - Campus closed.	Tuesday
August 1	
Tuesday Initial period for filing applications for	INTERSESSION 2001
admission to the following spring semester	INTERSESSION 2001 ENEVENUE STATE AMEGRICAS ENT.
begins.	January 2
August 18	Tuesday
FridayInstruction ends.	January 15
FALL SEMESTER 2000	Monday
FALL SEMESTER 2000	January 26
August 17	Friday Intersession ends.
Thursday Academic year begins.	(76) 7:0-4000
August 21	SPRING SEMESTER 2001
Monday Instruction begins.	January 24
September 4	January 24  Wednesday Semester begins.
Monday Labor Day - Campus closed.	
	January 29
September 9 Saturday Admission Day - Campus open.	Monday Instruction begins.
	February 12
October 12	Monday Lincoln's Birthday - Campus open.
Thursday Columbus Day - Campus open.	February 19
November 1 201 of buildings are and main send worseled T30 to and are hi	Monday
Wednesday Initial period for filing applications	Campus closed.
for admission to the following fall semester	March 26-30
November 11	Monday-Friday Spring recess - Campus open but no classes
SaturdayVeterans Day - Campus open.	April 2
afficient as several to based and an valence almost section and as the section of	Monday Instruction resumes.
November 20-24	May 18
Monday-Friday Fall recess - no classes. Campus open 11/20-22;	FridayLast day of classes.
Campus closed 11/23-24.	
	Monday Examination preparation (A.M.).
Friday Last day of classes.	May 21-26
December 11	Monday-Saturday Semester examinations.
Monday Examination preparation (A.M.).	May 26
December 11-16	SaturdayCommencement Exercises.
	May 28
Monday-Saturday Semester examinations.	Monday
December 18	May 29-31
MondayWinter recess begins.	Tuesday-Thursday Evaluation days.
December 25-31	succelling on
Monday-Sunday Holiday break - Campus closed.	June 1
Jean Campus crosca.	FridaySemester ends; grade reports due.

# The individual California State Colleges were bro Higher Education Act of 1960. In 1972 the system E Colleges and in 1982 the system became The Califor the CSU include comprehensive and polytechnic un

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became The California State University and Colleges and in 1982 the system became The California State University. Today the campuses of the CSU include comprehensive and polytechnic universities and, since July 1995, the California Maritime Academy, a specialized campus.

The oldest campus—San Jose State University—was founded in 1857 and became the first institution of public higher education in California. The most recently opened campus—California State

#### THE CALIFORNIA STATE UNIVERSITY

Campuses of The California State
University

Trustees and Officers of The Calfornia State University

Office of the Chancellor



University, Monterey Bay, began admitting students in the fall of 1995. A new new site has been conveyed and a 23rd campus, CSU Channel Islands, is being formally established in Ventura County Responsibility for The California State

University is vested in the Board of Trustees, whose members are appointed by the governor. The trustees appoint the chancellor, who is the chief executive officer of the system, and the presidents, who are the chief executive officers of the respective campuses.

The trustees, the chancellor and the presidents develop system wide policy, with actual implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of The California State University, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the chancellor.

Academic excellence has been achieved by The California State University through a distinguished faculty, whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals, as well as broad liberal education. All the campuses require for graduation a basic program of general education requirements, regardless of the type of bachelor's degree or major field selected by the student.

The CSU offers more than 1,600 bachelor's and master's degree programs in some 240 subject areas. Many of these programs are offered so that students can complete all upper-division and graduate requirements by part-time, late afternoon and evening study. In addition, a variety of teaching and school service credential programs are available. A limited number of doctoral degrees are offered jointly with the University of California and with private institutions in California.

Enrollments in fall 1997 totaled nearly 344,000 students, who were taught by over 18,000 faculty. The system awards more than half of the bachelor's degrees and 30 percent of the master's degrees granted in California. Some 1.7 million persons have graduated from CSU campuses since 1960.

# CAMPUSES - THE CALIFORNIA STATE UNIVERSITY

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California Polytechnic State University, San Luis Obispo San Luis Obispo, CA 93407 Dr. Warren J. Baker, President (805) 756-1111

California State University, San Marcos 333 S. Twin Oaks Valley Road San Marcos, CA 92096-0001 Dr. Alexander Gonzalez, President (760) 750-4000

Sonoma State University 1801 East Cotati Avenue Rohnert Park, CA 94928-3609 Dr. Ruben Armiñana, President (707) 664-2880

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721 Capitol Mall, Sacramento CA 95814

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c/o Trustees Secretariat
The California State University
400 Golden Shore, Suite 134
Long Beach, California 90802-4275

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The California State University 400 Golden Shore Long Beach, CA 90802-4275 (562) 985-2500

Dr. Charles B. Reed Chancellor - CSU System

Dr. David S. Spence Executive Vice Chancellor

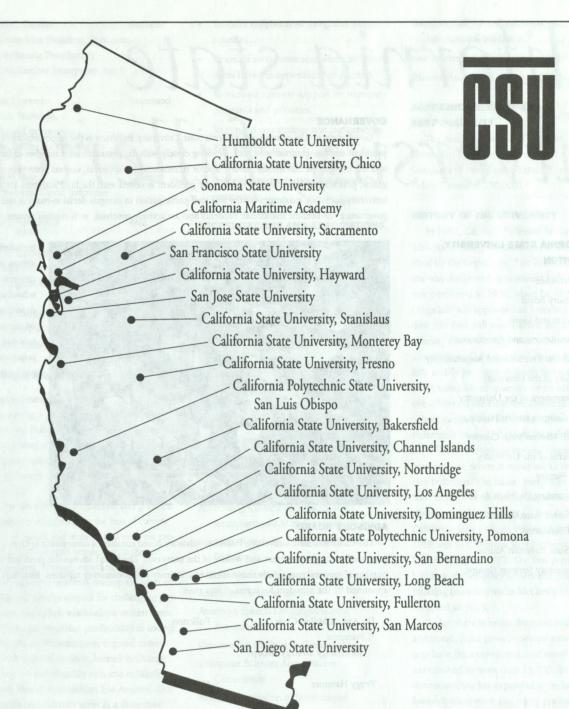
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Ms. Christine Helwick General Counsel



# THE CALIFORNIA STATE UNIVERSITY

# GOVERNANCE Governance on the campus at California State University, Full president and his administrative staff. Working closely with the and student groups that initiate review and/or recommend for

Governance on the campus at California State University, Fullerton is the responsibility of the president and his administrative staff. Working closely with the president are a number of faculty and student groups that initiate, review, and/or recommend for approval, various university programs, policies and procedures. Although the president is vested with the final authority for all university activities, maximum faculty and staff participation in campus decision-making and governance has become traditional. Students also are actively involved, with student representa-

tives included on almost all university, school and departmental committees and policymaking bodies.

### CALIFORNIA STATE UNIVERSITY, FULLERTON

Governance

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Foundation

Cal State Fullerton Alumni

Community Support Groups

#### **ADVISORY BOARD**

The California State University, Fullerton Advisory Board consists of community leaders interested in the development and welfare of the university. The board advises the president on a number of matters, particularly those affecting university and community relations. Members are appointed by the president for terms of four years.

Dr. Arnold Miller, Chair

Fullerton

President

Technology Strategy Group

Peggy Hammer

Placentia

Rudy Hanley

Santa Ana

President, CEO

**OCTFCU** 

Fullerton

Frederick T. Mason

Attorney at Law

Fullerton

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Lindquist-Clark, Inc.

Orange

Irene E. Ziebarth
Attorney at Law
AMS/Endispute

#### **MISSION AND GOALS**

#### Mission Statement

Learning is preeminent at California State University, Fullerton. We aspire to combine the best qualities of teaching and research universities where actively engaged students, faculty, and staff work in close collaboration to expand knowledge.

Our affordable undergraduate and graduate programs provide students the best of current practice, theory, and research and integrate professional studies with preparation in the arts and sciences. Through experiences in and out of the classroom, students develop the habit of intellectual inquiry, prepare for challenging professions, strengthen relationships to their communities and contribute productively to society.

We are a comprehensive, regional university with a global outlook, located in Orange County, a technologically rich and culturally vibrant area of metropolitan Los Angeles. Our expertise and diversity serve as a distinctive resource and catalyst for partnerships with public and private organizations. We strive to be a center of activity essential to the intellectual, cultural and economic development of our region.

#### Goals

- To ensure the preeminence of learning.
- To provide high-quality programs that meet the evolving needs of our students, community and region.
- To enhance scholarly and creative activity.

- To make collaboration integral to our activities.
- To create an environment where all students have the opportunity to succeed.
- To increase external support for university programs and priorities.
- To expand connections and partnerships with our region.
- To strengthen institutional effectiveness, collegial governance and our sense of community.

#### **ACCREDITATIONS AND ASSOCIATIONS**

California State University, Fullerton is accredited by the Western Association of Schools and Colleges. WASC maintains an office on the Mills College campus. Questions about accreditation may be addressed to:

Western Association of Schools and Colleges Box 9990 Mills College Oakland, CA 94613-0990

Phone: (510) 632-5000 E-mail: WASCSR@wasc.mills.edu

Other accreditation and association recognition includes:

Accreditation Board for Engineering and Technology

Accrediting Council on Education in Journalism and Mass Communications

American Assembly of Collegiate Schools of Business

AACSB Accounting Accreditation
American Chemical Society

American Speech-Language-Hearing Association

Commission on Teacher Credentialing Computer Sciences Accreditation

NAFSA: Association of International Educators

Commission

National Association of Schools of Art and Design

National Association of Schools of Dance National Association of Schools of Music National Association of Schools of Public Affairs and Administration

National Association of Schools of Theatre
National Council for Accreditation of Teacher
Education

National League for Nursing

Southern California Consortium on International Studies

Universities Field Staff International
Western Association of Graduate Schools

## ACADEMIC FREEDOM AND RESPONSIBILITY

The Academic Senate of California State University, Fullerton endorses the 1990 Statement of Professional Ethics (University Policy Statement 230.000).

#### **HISTORY OF THE UNIVERSITY**

In 1957, Cal State Fullerton became the 12th State College in California to be authorized by the Legislature. The following year a site was designated in northeast Fullerton. It was purchased in 1959, when Dr. William B. Langsdorf was appointed as founding president, the first staff was selected and plans for opening the new college were made. Orange County State College started classes for 452 full- and/or part-time students in September, 1959, using leased quarters for its administrative offices on the Fullerton Union High School campus and for its classrooms at Fullerton's Sunny Hills High School. In the fall of 1960, the college opened classes on its own campus, where it occupied 12 temporary buildings. The name changed to Orange State College in July 1962, to California State College at Fullerton in July 1964, to California State College, Fullerton in July 1968 and to California State University, Fullerton in June 1972. The first permanent building, the six-story Letters and Science Building (now known as McCarthy Hall), was occupied in 1963.

Today, there is much dramatic evidence of additional, rapid growth. Several new buildings have been completed, and enrollment has climbed to more than 25,000. Since 1963 the curriculum has expanded to include lower-division work and many graduate programs.

The Donahoe Higher Education Act of 1960 established the California State Colleges as a system under an independent Board of Trustees, redefined the functions of the State Colleges, and related them to both the community colleges and the University of California system.

In May 1971, Dr. L. Donald Shields, who had served as acting president for seven months, was appointed the second president of Cal State Fullerton. Dr. Miles D. McCarthy

became acting president in January 1981; Dr. Jewel Plummer Cobb took office as the third president in October 1981; and Dr. Milton A. Gordon was appointed the fourth president in August 1990.

#### **ENVIRONMENT OF THE UNIVERSITY**

Fullerton, a city of more than 123,000 inhabitants, is located in North Orange County, about 30 miles southeast of central Los Angeles. It is part of the Southern California population center and within easy freeway access of all the diverse natural and cultural attractions of this region.

Orange County, with an area of 782 square miles, is the 48th in size of California's 58 counties, but it is the third largest county in population (2.7 million). Orange County has experienced during the last four decades almost unprecedented growth as communities continue to occupy the diminishing expanses of open land.

Today, there co-exists an interesting mixture of the old and new economic and life styles in Orange County. Underneath the soil, archeologists and bulldozers uncover traces of the hunting and gathering Indian bands who flourished at least as early as 4,000 years ago in what was a benign and bountiful region. More visible traces remain of the Spanish and Mexican periods and cultures: Mission San Juan Capistrano, which began the agricultural tradition in Orange County, and subsequent adobes from the great land grants and ranches that followed. Additionally, both customs and many names persist from this period, and so does some ranching. The architectural and other evidences of the subsequent pioneer period are still quite visible: farmsteads, old buildings from the new towns that were established in the late 1800s, mining operations, and traces of early resort and other types of promotional activities. For about 100 years, farming was the main economic activity with products such as grapes, walnuts, vegetables and oranges replacing the older wheat and cattle ranches. Today, agriculture still is very important. Orange County ranks high among California's counties in mineral production with its oil, natural gas, sand and gravel, and clay mining and processing activities.

The extensive development of the 42 miles of beaches in Orange County and the development of such attractions as Disneyland, Knott's Berry Farm, the Laguna

Festival of Arts and Pageant of the Masters, the Arrowhead Pond of Anaheim, Edison International Field and Convention Center and the Orange County Performing Arts Center continue to make tourism an increasingly important activity. So does the Mediterranean-type climate, with rainfall averaging 14 inches per year, and generally mild days (either freezing or 100-degree temperatures uncommon) with frequent morning fog during the summer. Both downtown Los Angeles and the Pacific Ocean can be reached by car in half an hour, and mountain and desert recreation areas are as close as an hour's drive from the campus.

#### THE CAMPUS AND ITS BUILDINGS

Once part of a vast orange grove, Cal State Fullerton's attractively landscaped main campus now consists of 225 acres bounded on the south by Nutwood Avenue, on the west by State College Boulevard, on the north by Yorba Linda Boulevard and on the east by the Orange Freeway.

The portion of Orange County immediately surrounding the campus is predominantly suburban; it includes housing tracts, apartment complexes, shopping centers and industrial parks.

Other educational institutions also are part of the immediate environment. The Southern California College of Optometry opened in the spring of 1973. It is just north of Cal State Fullerton. To Cal State's immediate south is Hope University, a liberal arts school with a Bible emphasis, where students started classes in the fall of 1973. Western State University College of Law occupied its new campus to the immediate west of Cal State in January 1975.

The Cal State Fullerton campus itself has a high-density urban layout of facilities developed to serve a predominantly commuting public. The university's modern buildings were planned so that no student needs more than 10 minutes to go from one class to another. The campus is surrounded with landscaped parking areas.

The first permanent building, the Letters and Science Building, was occupied in 1963. This imposing structure, master planned to serve ultimately as a facility for undergraduate and graduate science instruction and research, has been used to house other programs until they could warrant new facilities of their own. This building is now called Miles D. McCarthy Hall.

Since 1963, growth has been rapid. The Performing Arts Center was completed in 1964, the Physical Education Building in 1965, the Library Building in 1966, the Commons in 1967, the Humanities-Social Sciences Building and Visual Arts Center in 1969, William B. Langsdorf Hall (Administration-Business Administration) and the Engineering Building in 1971, the Student Health Center in 1974, the Education-Classroom Building and University Center in 1976, an addition to the Visual Arts Center in 1979, the Jewel Plummer Cobb Residence Halls and the Charles L. and Rachael E. Ruby Gerontology Center in 1988, and the Fullerton Marriott and the Computer Science Building in 1989. The Ruby Gerontology Center was the first building on campus financed solely by contributed funds; the Fullerton Marriott, a full-service hotel. resulted from a joint venture involving the Marriott Corp., the university and the city of Fullerton.

An expansion of the Titan Student Union and a sports complex featuring a multipurpose stadium, baseball pavilion, track and tennis courts were completed in 1992. The five-story University Hall, with classrooms, faculty offices, and student and academic support services, was occupied in 1993, followed by the two-story Science Laboratory Center in 1994. University Library-North, a four-story addition to the University Library was completed in 1996 and dedicated as Pollak Library in 1998. A major addition to the Physical Education Building is being planned, as is an auditorium/fine arts instruction facility, which will include a 1,200-seat auditorium.

In the northeast corner of the campus is the Fullerton Arboretum, which was dedicated in the fall of 1979 in a joint venture with the city of Fullerton. It includes a 15-acre contoured botanical garden, a three-acre organic garden and a two-acre experimental plot. The ecologically arranged flora depicts habitats from the desert to the tropics. The Fullerton Arboretum also includes Heritage House, a restored 19th-century dwelling. Heritage House serves as a cultural museum for North Orange County, as well as an arboretum office.

The ample freeway and surface street accommodations that approach the main entrance to the university's campus also provide comparatively easy access to the great

and diverse learning resources available in Southern California: many other colleges and universities; museums, libraries, art galleries; zoos; and the wide variety of economic, governmental, social, and cultural activities and experiments that may be found in this dynamic and complex region of California and the United States.

Information concerning the instructional, laboratory and other physical facilities that relate to the academic program may be obtained from the Office of Facility Planning and Construction.

#### **CSUF MISSION VIEJO CAMPUS**

The California State University, Fullerton-Mission Viejo Campus is located on a portion of the campus of Saddleback College in Mission Viejo. As a branch campus of Cal State Fullerton, it serves the higher education needs of southern Orange County. The Mission Viejo Campus offers course work at both the upper-division (junior/senior) and postbaccalaureate levels. All lower-division (freshman/sophomore) General Education and major course work must be taken at either the main campus in Fullerton or at a community college.

The five CSUF buildings at the Mission Viejo campus contain an administrative center that includes registration access, faculty offices, classrooms, an electronic library, computer laboratories and student lounges. Information regarding the university or MVC is available to students and prospective students in the MVC administrative offices located in Building H.

Students who plan to attend the Mission Viejo Campus (MVC) must be admitted to California State University, Fullerton through the regular admissions process. Applications for admission to the university are available at the main campus, the Mission Viejo Campus and at all community colleges and high schools. Registration for MVC classes takes place through the regular university processes (touch-tone registration).

Student Affairs enhances and supports the academic mission of the university by implementing the concepts of student development and student services. As a resource for students, administration, faculty, staff and the broader community, Student Affairs provides a wide variety of university services. The assistant dean for Student Affairs provides information on Student Affairs at the Mission

Viejo Campus and serves as ombudsman for all student concerns.

The University Library at MVC offers students access to all available materials contained in the main library at Fullerton. The MVC Library is an electronic resources library featuring CD-ROM, World Wide Web and Internet access to information. Students can access citations, abstracts, and full text of periodical articles via databases available from the Main Library's Home Page. The MVC Library also has a collection of more than 600 periodicals on microfilm (1980-1997). Current articles that are available via Web access supplement this collection. MVC also offers students access to materials available at other institutions via Interlibrary Loan, subscription services and other library agreements and services.

The campus has expanded its information technology facilities to include the addition of a multipurpose computer classroom to the computer laboratory computers in the student lounge and video conferencing.

The multipurpose computer classroom incorporates some of the latest technology including a video network, which allows instructors to show the latest films in a variety of language. Instructors are available to broadcast their presentations to individual students, students groups, or to all students. Similarly, the instructor can see a student's screen in order to provide individual attention or to share it with the entire class.

Overall, students at the Mission Viejo
Campus have full access to technology linked to the Internet and to connectivity with the main campus in Fullerton.

For information, contact the CSUF-Mission Viejo Campus, 28000 Marguerite Parkway, Mission Viejo, California 92692 or telephone (949) 582-4990. Office hours are 8:30 a.m. to 7:30 p.m. Monday through Thursday, and 9:00 a.m. to 1:00 p.m. on Friday.

#### STUDENTS OF THE UNIVERSITY

Much of the distinctive character and learning atmosphere of any campus comes from the nature and vitality of its students. Diversity, the synthesis of academic with work and family interests, strong achievement records, and relative maturity are some of the predominant characteristics of the student body at Cal State Fullerton.

The university is primarily a communitybased institution, with one on-campus residence facility which opened in the spring of 1988. Nearly 75 percent of the students work 20 or more hours per week, and yet 62 percent of all students take 12 or more hours of course work each semester. The majority of students live in Orange County. Of the fall 1998 new undergraduate students, 36 percent came from California public high schools, 6 percent from California private high schools, 45 percent came from California community colleges, 6 percent from other Cal State campuses, 2 percent from other California colleges and universities, and 4 percent from other states or other countries. The fall 1998 new graduate students came from Cal State campuses (55 percent), other California colleges and universities (24 percent), and other states or other countries (22 percent).

The student body is 9 percent first-time freshmen, 20 percent other lower division, 54 percent upper division, and 17 percent graduate levels. Fifty-nine percent of all students are women. The median age of all students is 23; undergraduates have a median age of 22, while graduate students have a median age of 29. Many students take advantage of course offerings during the day and at night, in order to create a workable schedule for their multiple responsibilities.

Many students already have clearly defined interests in a major field of study. Only 11 percent of all students have not yet declared a major, and are in the process of exploring different fields of knowledge. During 1997-98, 4,312 undergraduates received their baccalaureate degrees, and 798 graduates received their master's degrees.

#### THE FACULTY

Central to the effectiveness of any institution of higher learning is the quality and dedication of its individual faculty members to teaching and scholarship.

In the fall of 1997 there were 611 full-time faculty and administrators and 846 part-time faculty members teaching on the campus. Almost all the full-time faculty had some previous college or university teaching experience before coming to Fullerton. Faculty members also have a wide variety of scholarly experiences and creative activities. Eighty-seven percent of the tenured and tenure track faculty have earned their doctoral degrees.

Criteria for selection to the faculty include mastery of knowledge in an academic specialty, demonstrated skill and experi-

ence in teaching, and continuing interest in scholarly study and research. Retention and promotion criteria also include service to the university and community.

Information concerning the faculty and other personnel may be obtained from the Office of Faculty Affairs and Records.

#### **OUTSTANDING PROFESSOR AWARD**

Each year the university selects a faculty member to receive the CSUF Outstanding Professor Award. This individual becomes the campus nominee for the statewide Outstanding Professor Award, an honor conferred annually on two system faculty by the Trustees of the California State University.

Below are the names of all professors who have received the CSUF Outstanding

Professor Award. Those with an asterisk were also honored with the statewide award.

Year	Name	Subject
1963-64	Donald Stanley Tull	Marketing
1964-65	Miles Duffield McCarthy*	Biology
1965-66	Giles Tyler Brown	History
1966-67	Gustave Bording	Foreign
	Mathieu	Languages
		&
1067 60	Name Taxable	Literatures
1907-08	Norman Townsend- Zellner	Economics
1968-69	John Brown Mason	Political
	neighbor of knowled	Science
1969-70	No award given	
1970-71	Loh Seng Tsai	Psychology
1971-72	Richard C. Gilbert	Mathematics
1972-73	Herbert C.	Quantitative
	Rutemiller	Methods
1973-74	Fred M. Johnson	Physics
1974-75	Willis E. McNelly*	English
1975-76	Donald E. Lagerberg	Art
1976-77	Sydney Klein	Economics
1977-78	Charles G. Bell	Political
		Science
1978-79	Bruce H. Weber	Chemistry
1979-80	Michael H. Horn	Biology
1980-81	Donald A. Sears	Linguistics
1981-82	Joyce E. Pickersgill	Economics
1982-83	Carl C. Wamser	Chemistry
1983-84	Corinne S. Wood	Anthropology
1984-85	Maria C. Linder	Chemistry
1985-86	Charles C. Lambert	Zoology
1986-87	Glenn M. Nagel	Chemistry
	Harris S. Shultz*	Mathematics
1988-89	Warren A. Beck	History

1989-90	Roger Nanes	Physics
1990-91	Gerald F. Corey	Human
		Services/
		Counseling
1991-92	Michael H.	Psychology
	Birnbaum	
1992-93	David L. Pagni*	Mathematics
1993-94	Keith O. Boyum	Political
		Science
1994-95	Carol P. Barnes	Elementary
		and Bilingual
		Education
1995-96	Mario Martelli	Mathematics
	Frank G.	
	Cummings III	
1997-98	John A. Olmsted	Chemistry

### CALIFORNIA STATE UNIVERSITY, FULLERTON FOUNDATION

The California State University, Fullerton Foundation was established and incorporated as a not-for-profit corporation in October 1959. The Foundation is an auxiliary organization of the university established to provide essential student, faculty and staff services which cannot be provided from state appropriations. It supplements the program and activities of the university in appropriate ways by assisting the university in fulfilling its purposes and in serving the people of the State of California especially those in the immediate Fullerton area.

The Foundation assists the university by developing and administering research and educational grants and contracts; conducting retail operations including bookstore, food service and vending on campus; and administering various educationally-related functions and special programs, such as the Tucker Wildlife Sanctuary and the university's affordable housing program.

The Foundation's overall policies are administered by a Board of Directors composed of members of the university faculty, administration and students, as well as prominent community leaders.

#### **Board of Directors**

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Secretary, Ron Rangel#
Treasurer, Pearl Cheng\* (ex-officio)
Executive Director, William M. Dickerson\*
(ex officio)
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Gary Del Fium#
Julia George\*\*
Milton A. Gordon\*
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Kolf Jayaweera\*
David Palmer#
Robert Palmer\*
Stu Ross\* (ex officio)
Ephraim Smith\*
Sandra Sutphen\*\*
ASI President plus two additional student members

#### **Administrative Officers**

William M. Dickerson, Executive Director Pearl Cheng, Director, Finance & Administration

\*Administrator \*\*Faculty \*\*\*Student #Community Member

#### **CAL STATE FULLERTON ALUMNI**

The Cal State Fullerton Alumni
Association provides opportunities for continued affiliation with the university community, as well as numerous benefits and services.

As alumni donors to the university, former students of Cal State Fullerton are offered a variety of benefits including library privileges at CSU campuses, travel, professional development programs, financial programs, discounts on athletic and theater events on campus and more. In addition, the Association has social and professional development programs to fit the needs of our most recent graduates. The most important benefits, however, are the opportunities to network with fellow alumni and maintain ties with Cal State Fullerton.

The Student Alumni Association is a unique student organization that not only offers ways to get involved in campus life, but also links students to CSUF alumni. In addition to social events and service projects, SAA members have career development opportunities by networking with alumni.

#### **COMMUNITY SUPPORT GROUPS**

California State University, Fullerton welcomes and encourages the development and activities of volunteer organizations committed to enriching university life. The expertise and efforts of its dedicated volunteers are most appreciated for they enhance the quality of the educational experience for Cal State Fullerton students and help ensure the university's academic excellence. In addition to their involvement in the programs of their own organizations, support group members are invited to participate in university events.

#### Art Alliance

The Art Alliance encourages excellence in the arts, particularly through the educational curriculum of the university's Art
Department. Organized in 1967, the alliance assists in financing gallery exhibitions, participates in the acquisition of campus art works, and annually awards scholarships and graduate research grants. Art Alliance members host special exhibit tours and receptions, informal talks by faculty members, and trips to museums and artists' studios.

# Association of the Friends and Docents of the Anthropology Museum

Anthropology majors, alumni and interested members of the community make up association membership. The group takes an active role in presenting exhibits, providing tours and conducting the activities of the museum.

#### Continuing Learning Experience

Continuing Learning Experience (CLE) was formed in 1979 by retired and semi-retired individuals dedicated to the pursuit of lifelong learning in a high-level educational environment. Entirely self-supporting, CLE offers study groups and discussion forums of educational and special interest to the community, as well as lecture series, classes and trips.

Members also can participate in SeniorNet, a computer networking program, and the Wellness Clinic. The CLE office is housed in the Ruby Gerontology Center, a research and conference facility built with private funds in large part from CLE members.

#### Emeriti

Cal State Fullerton's retired faculty and staff members belong to the Emeriti, which is dedicated to keeping its members involved and knowledgeable about current campus life. While providing opportunities to be involved in faculty governance, curricular programs and campus activities, the organization also offers renewal of friendships between its members. Through affiliation with the systemwide CSU emeriti organization, ERFA, emeriti concerns are presented to all branches of the government and the Chancellor's Office.

#### Friends of the Fullerton Arboretun

Friends of the Fullerton Arboretum support a 26-acre ecological preserve located on the northeast corner of campus. The Friends host demonstrations, lectures and tours of the arboretum and Heritage House, a turn-of-the-century residence listed in the National Register of Historic Places and the Inventory of California Historic Sites. Through plant sales, special activities and management of the arboretum's gift and garden shop, the Friends contribute operating monies for the arboretum and fund student scholarships, grants and internships.

#### **Music Associates**

In support of the Music Department, Music Associates fund student scholarships; an annual award contest recognizing excellence in vocal, instrumental and piano performance; and purchases of equipment and instruments to enhance Cal State Fullerton's music program. Associates attend campus performances and co-sponsor one of the biggest holiday events on campus, the "Christmas Carol Candlelight Dinner and Concert" featuring the University Singers. The Associates also hold an annual spring scholarship luncheon.

#### Patrons of the Library

Community members, alumni, and faculty and staff members interested in maintaining the quality of the University Library belong to the Patrons of the Library. The group sponsors exhibits and operates a book sale center in conjunction with the Emeriti. Funds raised through book sales, dues and donations support the augmentation of library holdings and facilities.

#### President's Associates

President's Associates is an organization whose members are committed to providing quality higher education at Cal State
Fullerton. Membership contributions enable the university to offer cultural and educational programs, student scholarships, faculty research grants and recognition awards to outstanding students and faculty members. Annual activities include an October reception and a May luncheon, when new
President's Scholars are named. The scholars program, funded by the Associates, recognizes a select group of students for academic and extracurricular performance.

#### Reading Educators Guild

Graduates who earn a master of science in education with a concentration in reading and other interested individuals are eligible for membership in the Reading Educators Guild. Its purpose is to provide service as a professional development and networking organization for reading educators.

Throughout the school year, the Guild holds various activities, lectures and conferences.

#### **School Advisory Councils**

Advisory councils are composed of community and campus leaders who are committed to sharing their expertise and providing support to individual schools within the university. Groups include the School of Business Administration and Economics Executive Council, School of Communications Executive Council, School of Engineering and Computer Science Community Advisory Board, and School of Human Development and Community Service Community Advisory Council.

#### Titan Athletic Club

The Titan Athletic Club (TAC) is the fund-raising arm of CSUF Intercollegiate Athletics. The sole purpose of the TAC is to enhance the capabilities of athletics to provide the highest quality programs for student-athletes, students, faculty and staff. Included in this area are individuals and businesses that support scholarships, facility upgrades and sport-specific booster organizations among others. Creating this support while increasing the family atmosphere surrounding CSUF's many programs creates the total package of a high-quality athletic experience for all involved.

#### Tucker Wildlife Society

The Tucker Wildlife Society supports the Tucker Wildlife Sanctuary in the Modjeska Canyon in the Santa Ana Mountains. Its members assist the sanctuary in offering programs that support the environment, save wildlife and provide outdoor education for thousands of children. A research center for biological field studies, the facility also offers continuing educational service to the community, teacher education in nature interpretation and conservation education, and training of students planning to enter the public service field.

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#### **EXECUTIVE DIVISION**

Milton A. Gordon, President Norma L. Morris, Staff Assistant to the President John Beisner, Adviser to the President

(Vacant) Director of Internal Audit

#### **EXECUTIVE VICE PRESIDENT**

Judith Anderson, Executive Vice President James Mettler, Assistant to the Executive Vice President

#### **GOVERNMENT/COMMUNITY RELATIONS**

Owen Holmes, Jr., Associate Director, Government/Community Relations Karon Kaelin, Liaison for Government/Community Relations

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Mel Franks, Associate Director of Athletics, Media Relations Ronald Bond, Associate Director of Athletics, Sports Complex Ronald Andris, Assistant Director of Sports Complex,

Event Management

John Jentz, Assistant Director of Athletics, Business Christine McCarthy, Assistant Director of Athletics Academic Services

June Kearney, Assistant Director of Athletics, Compliance

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(Vacant) Associate Vice President, Public Affairs Paula Selleck, Director of Media Relations (Vacant) Director of Publication Services

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E. Sue Boeltl, Senior Director Financial Operations Cheryl Perreira, Director, Procurement and Business Services Elizabeth Grace, Procurement Officer (Acting) Grace Castillo, Accounts Payable Manager (Vacant) Assistant Director, Financial Operations Marilou Encina, Operations Supervisor, Payroll Services Ruby Cook, Central Support Services Coordinator Carlos Navarette, Internal Controls Manager Keiko Takahashi, Director, Business Systems

Linda Erickson, Director, Budget and Revenue Management

Gary Gardner, Financial Manager/Accounting Services Flora Farzad, Accounting Compliance Manager Dolores Daoud, Director, Student Financial Services (Acting) Roberta Wallstrom, Assistant Director, Student Financial Services

#### ■ INFORMATION/TECHNOLOGY SERVICES

Michael Parker, Chief Information/Technology Officer (Acting) Dick Bednar, Director, Information/Technology Susan Kachner, Director, Administration Computer Susan Lasswell, Director, Information Technology Communications Mike Marcinkevicz, Director, Information Technology Support

#### **ACADEMIC AFFAIRS**

Ephraim P. Smith, Vice President for Academic Affairs Davida Hopkins-Parham, Executive Assistant to the Vice President Margaret A. Atwell, Associate Vice President, Academic Affairs Dolores Hope Vura, Director, Analytical Studies Robert Fecarotta, Associate Director, Analytical Studies Mary Watkins, Director, Faculty Affairs and Records Ellen Junn, Director, Faculty Development Center Stuart A. Ross, Director, Office of Grants & Contracts Vickie Langille, Coordinator of Regulatory Compliance and Intermural Programs

Chris Smithson, Coordinator, Contracts and Grants William F. Presch, Director, Desert Studies Consortium

#### **ADMISSIONS AND RECORDS**

James C. Blackburn, Director, Admissions and Records Nancy Dority, Admissions Officer Barbara Hooper, University Articulation/Project Officer Carole Jones, Registrar Melissa Whatley, Associate Registrar

#### ■ ACADEMIC PROGRAMS

Thomas P. Klammer, Associate Vice President, Academic Programs Gladys Fleckles, Director, Graduate Studies Robert Belloli, Coordinator, Undergraduate Studies David Drath, Coordinator, Health Professions Christine McCarthy, Director, Athletic Academic Service Harvey Grody, Prelaw Adviser Benjamin Hubbard, Director, Faculty Mentor Program Sally Cardenas, Director, Center for Internships and Cooperative Education

Claire Palmerino, Director, Center for Careers in Teaching
Ed Trotter, Director, University Honors Program
Sylvia Alva, Director, Fullerton First Year

#### ■ UNIVERSITY EXTENDED EDUCATION

Harry L. Norman, Dean, University Extended Education

Arline Burgmeier, Director, American Language Program

Don Pease, President, Continuing Learning Experience

Gregory Dyment, Director, Fullerton Arboretum

Judy Strong, Director, Credit Programs

Harry Norman, (Acting) Director, Learning Technology Center

Melody Johnston, Director, Marketing and Extension Programs

Ruth Richardson, Director, Operations

Lorraine Waters, Director, Student Services

#### **LIBRARY**

Richard C. Pollard, University Librarian

Patricia L. Bril, Associate University Librarian

Teresa Malinowski, Chair, Technical Services

#### **■ MISSION VIEJO CAMPUS**

George Giacumakis, Director, Mission Viejo Campus

Lynne McVeigh, Assistant Dean for Student Affairs,

Mission Viejo Campus

#### STUDENT AFFAIRS

Robert L. Palmer, Vice President for Student Affairs Charles W. Buck, Associate Vice President for Student Affairs Silas Abrego, Associate Vice President for Student Affairs Kandy S. Mink, Assistant Vice President for Student Affairs Loydene Keith, Dean of Students Sunnie Foy, Director, Budget and Human Resources Judy Mandel, Executive Director of Development for Student Affairs Harvey McKee, Executive Director, Associated Students James Case, Director, Career Planning and Placement Shirley St. Peter, Director, Counseling and Psychological Services Paul K. Miller, Director, Disabled Student Services Charles Moore, Director, Enrollment Management/ University Outreach Deborah Gordon, Director, Financial Aid Darlene Stevenson, Director, Housing and Residence Life Robert Ericksen, Director, International Education and Exchange (Vacant), Director, Student Health and Counseling Service Jeremiah Moore, Director, Student Academic Services

Vernon Padgett, Acting Director, Student Affairs Research Center

Barbara McDowell, Director, Women's/Adult Reentry Center

John Reid, Director, Student Diversity Program

#### **ADMINISTRATION**

Willie J. Hagan, Vice President for Administration

Naomi Goodwin, Executive Assistant

William C. Barrett, Associate Vice President for Administration

Thomas H. Whitfield, Director, Environmental Health & Safety

Joe Ferrer, Director, Parking and Transportation

Sue Fisher, Director, Radiation Safety Officer

Martin Carbone, Risk Manager & Division Budget Manager

#### **FACILITIES MANAGEMENT**

Jay W. Bond, Associate Vice President, Facilities Management

Patricia F. Shoemaker, Facility Planner

Michael C. Smith, Director, Design & Construction Services

Willem H. van der Pol, Acting Director, Physical Plant

#### HUMAN RESOURCES

David J. Losco, Executive Director, Human Resources

Rosamaria Gomez-Amaro, Director, Affirmative Action

Robin Innes, Director, Employee Training & Development

Dorothy G. Edwards, Director, Human Resource Operations

#### PUBLIC SAFETY

Judith D. King, Chief of Police/Director, Public Safety Harry Knopp, Lieutenant

#### **FOUNDATION**

William M. Dickerson, Executive Director, Foundation
 Shou-Yinn (Pearl) Cheng, Director, Finance and Administration
 Jerry C. Olson, Director, Titan Shops
 Anthony Lynch, Director, Campus Dining

#### **UNIVERSITY ADVANCEMENT**

Harry R. Gianneschi, Vice President for University Advancement
Larry Zucker, Associate Vice President, University Corporate
Marketing & Events

Mary Jacobsen, Associate Vice President, Development
Bob May, Director of Development, Athletics
Mary Ann Spraic, Senior Director of Development
Holly Wisneski, Senior Director of Development, School of the Arts
Barbara Esmark, Assistant Vice President, Endowments and
Planned Giving
Shelia Faris, Director of Development, Information Services
Kathleen Costello, Executive Director of Center for Non-Profit
Sector Research
Susan Porter, Director, Foundation Relations
Diana Morgan, Director, Advancement Programs
Carlos Leija, Director, Principle Gifts

Shawne Grabs, Senior Director of Development, Arboretum and Gerontology

Jeff Cova, Director, University Marketing and Sales Patty Boggs, Director, Alumni Relations

#### **SCHOOL OF THE ARTS**

Jerry Samuelson, Dean

Joseph Arnold, Associate Dean

Lea Jarnigan, Assistant Dean, Student Affairs

#### ART DEPARTMENT

Darryl J. Curran, Chair

#### **MUSIC DEPARTMENT**

Gordon Paine, Chair

#### THEATRE DEPARTMENT

Susan Hallman, Chair

#### SCHOOL OF BUSINESS ADMINISTRATION AND ECONOMICS

Anil K. Puri, Dean

Thomas Johnson, (Acting) Associate Dean, Academic Programs

Katrin Harich, (Acting) Associate Dean, Administration

Robert Miyake, Assistant Dean, Academic Advisement

Ray Murillo, Assistant Dean, Student Affairs

#### **ACCOUNTING DEPARTMENT**

Betty Chavis, Chair

#### **ECONOMICS DEPARTMENT**

Stewart Long, Chair

#### FINANCE DEPARTMENT

John Erickson, Chair

#### MANAGEMENT DEPARTMENT

Ghasem Manoochehri, Chair

# MANAGEMENT SCIENCE/INFORMATION SYSTEMS DEPARTMENT

Barry Pasternack, Chair

#### MARKETING DEPARTMENT

Irene Lange, Chair

#### SCHOOL OF COMMUNICATIONS

Rick D. Pullen, Dean

Fred Zandpour, Associate Dean

Peggy Garcia Bockman, Assistant Dean, Student Affairs

#### **COMMUNICATIONS DEPARTMENT**

Wendell Crow, Chair

#### SPEECH COMMUNICATION DEPARTMENT

Robert Emry, Chair

#### SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

R.D. Rocke, Dean (Acting)

David R. Falconer, (Acting) Associate Dean

Yuri Betancourt, Assistant Dean, Student Affairs

#### COMPUTER SCIENCE DEPARTMENT

Nick Mousouris, Chair

#### **■ DIVISION OF ENGINEERING**

Timothy W. Lancey, Division Chair

#### **CIVIL AND ENVIRONMENTAL ENGINEERING DEPARTMENT**

Chandrasekhar Putcha, Chair

#### **ELECTRICAL ENGINEERING DEPARTMENT**

David Cheng, Chair

#### MECHANICAL ENGINEERING DEPARTMENT

Hasan Sehitoglu, Chair

### SCHOOL OF HUMAN DEVELOPMENT AND COMMUNITY SERVICE

Soraya M. Coley, Dean

Don Martin, Associate Dean

Nancee L. Buck, Assistant Dean, Student Affairs

#### ■ DIVISION OF CHILD, FAMILY AND COMMUNITY SERVICES

Judith Ramirez, Division Chair

#### CHILD AND ADOLESCENT STUDIES DEPARTMENT

Sylvia Alva, Chair

#### **COUNSELING DEPARTMENT**

(Vacant) Chair

#### **HUMAN SERVICES DEPARTMENT**

(Vacant) Chair

#### **NURSING DEPARTMENT**

Christine Latham, Chair

#### **DIVISION OF EDUCATION**

(Vacant) Division Chair

#### **EDUCATIONAL LEADERSHIP DEPARTMENT**

Louise Adler, Chair

# ELEMENTARY, BILINGUAL & READING EDUCATION DEPARTMENT

Tom Savage, Chair

#### SECONDARY EDUCATION DEPARTMENT

Ron Pahl, Chair

#### SPECIAL EDUCATION DEPARTMENT

Belinda Dunnick Karge, Chair

#### **■ DIVISION OF KINESIOLOGY AND HEALTH PROMOTION**

Roberta Rikli, Division Chair

#### MILITARY SCIENCE PROGRAM

Major Adrienne van Dooren, Coordinator

#### SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

Donald S. Castro, Dean

Curtis W. Swanson, Associate Dean

Angela Della Volpe, Associate Dean, Student Academic Affairs

Kevin Colaner, Assistant Dean, Student Affairs

#### AFRO-ETHNIC STUDIES DEPARTMENT

Wacira Gethaiga, Chair

#### **AMERICAN STUDIES DEPARTMENT**

Jesse Battan, Chair

#### ANTHROPOLOGY DEPARTMENT

Susan Parman, Chair

#### **CHICANO STUDIES DEPARTMENT**

Isaac Cardenas, Chair

#### **COMPARATIVE RELIGION DEPARTMENT**

Benjamin Hubbard, Chair

#### **CRIMINAL JUSTICE DEPARTMENT**

Keith Boyum, Chair

#### **ENGLISH AND COMPARATIVE LITERATURE DEPARTMENT**

Joseph Sawicki, Chair

#### FOREIGN LANGUAGES AND LITERATURES DEPARTMENT

Leon Gilbert, Chair

#### **GEOGRAPHY DEPARTMENT**

William Lloyd, Chair

#### HISTORY DEPARTMENT

William W. Haddad, Chair

#### PHILOSOPHY DEPARTMENT

James Hofmann, Chair

#### **POLITICAL SCIENCE DEPARTMENT**

Keith Boyum, Chair

#### **PSYCHOLOGY DEPARTMENT**

David Perkins, Chair

#### SOCIOLOGY DEPARTMENT

Ronald Hughes, Chair

#### **ASIAN STUDIES PROGRAM**

William W. Haddad, Coordinator

#### **ASIAN AMERICAN STUDIES PROGRAM**

Craig Ihara, Coordinator

#### **ENVIRONMENTAL STUDIES PROGRAM**

(Vacant) Coordinator

#### **GERONTOLOGY PROGRAM**

William Smith, Coordinator

#### **LATIN AMERICAN STUDIES PROGRAM**

Robert Voeks, Coordinator

#### LIBERAL STUDIES PROGRAM

Ronald Clapper, Coordinator

#### LINGUISTICS PROGRAM

Franz Müller-Gotama, Coordinator

#### RUSSIAN AND EAST EUROPEAN STUDIES PROGRAM

Roshanna Sylvester, Coordinator

#### **WOMEN'S STUDIES PROGRAM**

Sandra Sutphen, Coordinator

#### SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

Kolf O. Jayaweera, Dean

David Fromson, Associate Dean

(Vacant) Assistant Dean, Student Affairs

#### **BIOLOGICAL SCIENCE DEPARTMENT**

C. Eugene Jones, Chair

#### CHEMISTRY AND BIOCHEMISTRY DEPARTMENT

John Olmsted, Chair

#### **GEOLOGICAL SCIENCES DEPARTMENT**

John Foster, Chair

#### **MATHEMATICS DEPARTMENT**

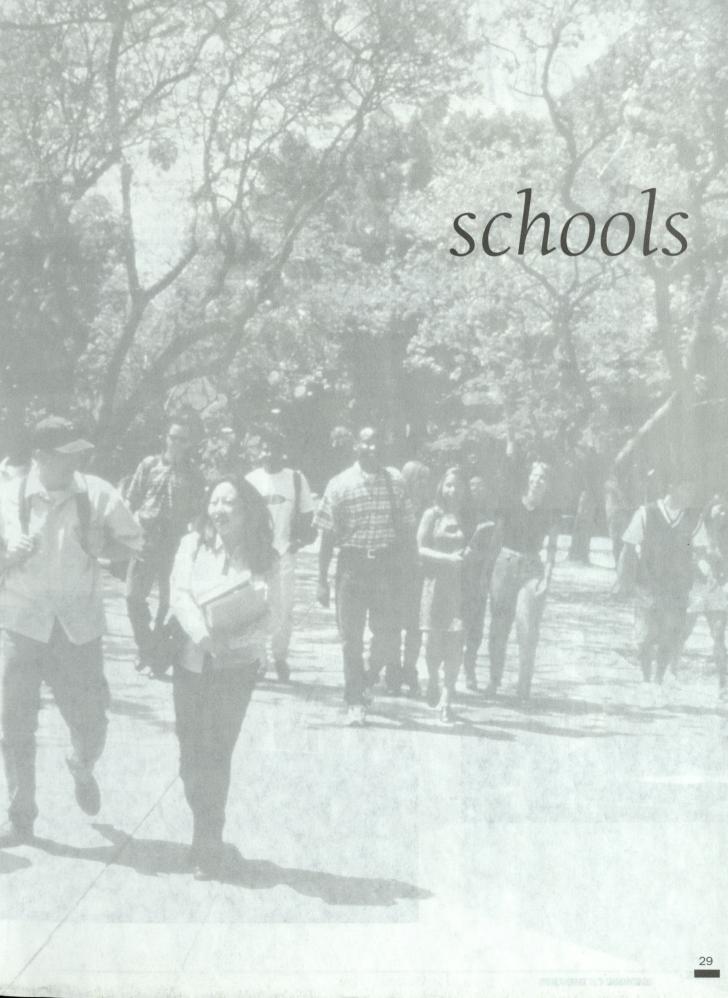
James O. Friel, Chair

#### **PHYSICS DEPARTMENT**

Mark Shapiro, Chair

#### SCIENCE EDUCATION PROGRAM

Gaylen Carlson, Acting Coordinator



# school of the arts

The learning opportunities within the School of the Arts are based on a commitment to artistic and academic excellence. We provide an environment which encourages individual achievement for performers, artists, and scholars.

Within the broader university liberal arts environment, the School of the Arts offers intensive programs in Art, Music, Theatre and Dance. We are also committed to the enhancement of artistic awareness of all students.

We extend a warm welcome to you and we promise that with your perseverance, we will do everything possible to further your goals and objectives in whatever field of the arts you choose.

Academic advisement is available through the departments. Faculty advisors are available to assist students with career decisions and degree requirements.

Several scholarships are available to students in the School of the Arts. Inquiries should be made to the respective department offices.

#### DEAN:

Jerry Samuelson

#### ASSOCIATE DEAN:

Joseph Arnold

#### **ASSISTANT DEAN, STUDENT AFFAIRS:**

Lea Jarnigan

#### **DEAN'S OFFICE:**

Visual Arts 199

#### **PROGRAMS OFFERED**

Art, Bachelor of Arts

Art History

General Studio Art

Teaching

Art, Bachelor of Fine Arts

Ceramics

Crafts

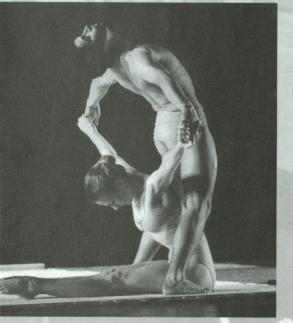
Creative Photography

Drawing and Painting

Entertainment Art/Animation

Graphic Design

Illustration





Art, Master of Arts

Drawing and Painting (including Printmaking)

Sculpture

Crafts (including Ceramics, Glass, Wood, Jewelry/Metalsmithing)

Design (including Graphic Design, Illustration, Exhibition Design, Creative Photography)

Art History

Art, Master of Fine Arts

Drawing, Painting and Printmaking

Sculpture

Ceramics (including Glass)

Crafts (including Jewelry/ Metalsmithing and Woodworking)

Design (including Graphic Design, Illustration and Exhibition Design)

Creative Photography

Certificate in Museum Studies

Dance, Bachelor of Arts

Music, Bachelor of Arts

Liberal Arts

Music Education

Music History and Theory

Music, Bachelor of Music

Commercial Music

Composition

Instrumental

Keyboard

Voice

Accompanying

Minor in Music

Music, Master of Arts

Music History and Literature

Music Education

Music, Master of Music

Performance

Theory-Composition

Theatre Arts, Bachelor of Arts

Liberal Arts

Production/Performance

Acting

Directing

Playwriting

Technical Production/Design

Teaching

Theatre, Bachelor of Fine Arts

Musical Theatre

Theatre Arts, Master of Arts

Theatre Arts, Master of Fine Arts

Acting

Directing

Design and Technical Production

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# school of business

Business Economics

Finance

ASSOCIATE DEAN (ACTING),
ADMINISTRATION:

Katrin R. Harich

ASSOCIATE DEAN (ACTING), ACADEMIC PROGRAMS:

Thomas W. Johnson

#### **ASSISTANT DEANS:**

Robert Miyake, Academic Advisement Ray Murillo, Student Affairs

#### **DEAN'S OFFICE:**

Langsddorf Hall 700



Management

Management Information Systems

Management Science

Marketing

Professional Business

Bachelor of Arts in Economics

Bachelor of Arts in International

Business

Concentrations in:

Chinese

French

German

Japanese

Portuguese

Spanish

Minor in Business Administration

Minor in Economics

Minor in Management

Information Systems

Master of Science in Accountancy

Master of Business Administration

Concentrations in:

Accounting

Business Economics

Finance

International Business

Management

Management Science/Information Systems

Marketing

Master of Arts in Economics



Master of Science in Management Science

Logistics

Management Information Systems

Operations Research

Concentrations in:

Statistics

Master of Science in Taxation

#### INTRODUCTION

Programs of study in the School of Business Administration and Economics equip men and women with the intellectual and professional tools needed to assume responsible positions in business, industry, education, government, and social service. The school offers a broad exposure to business administration and economics. Behavioral and quantitative sciences are studied in both theoretical and applied contexts. Mathematics is used as a key tool in the analysis of complex problems and in the interpretation of data. Emphasis is placed on effective oral and written communication. Students are made aware of the need for imaginative, innovative solutions to business problems that encompass human needs and ethical objectives.

The school provides the opportunity to develop technical expertise in a chosen discipline at a beginning professional level acceptable to prospective employers. Eight concentrations are offered within the business administration major as well as an economics major, an international business major and a business education credential program.

The School of Business Administration and Economics offers the only undergraduate and graduate programs in Orange County accredited by the American Assembly of Collegiate Schools of Business. In addition, our Accounting program is one of only four programs in the state of California that is nationally accredited by the American Assembly of Collegiate Schools of Business as a separate program. Accreditation assures a rigorous course of study covering the full spectrum of business administration. It also indicates a well-qualified faculty, high standards for students, access to computing and an extensive library system.

#### MISSION STATEMENT

The Mission of the School of Business Administration and Economics, California State University, Fullerton is to serve the educational needs of the region and state through undergraduate, graduate, and outreach programs. Specifically, the School will provide high-quality, affordable business education to a large and diverse group of undergraduates. For the working adults who form the core of the graduate student population, the School will provide high-quality, well-focused professional business education. The School will reach out to the community through workshops, certificates, in-house training, consulting and other forms of non-traditional education; community-based research and other research services are a part of this effort. The School will support research that contributes to the intellectual capital of the School's faculty, the University, and society. This Mission, taken as a whole, should be seen as having interrelated parts that work together and support the entire educational enterprise.

#### Mission: Undergraduate Education

Undergraduate business education is the School's major focus. Undergraduate programs must prepare students to think critically and provide them with the range of skills required to meet the challenges of a changing world environment. To achieve this mission, the School will

- Provide an integrated, competency-based undergraduate education that develops contemporary, applied computing expertise, an understanding of the interplay of domestic and international operations on functional areas, and the ability to manage ethically in a changing world environment;
- Prepare undergraduate students to pursue entry and mid-level positions in the functional areas and specialized professions, entrepreneurship, and graduate education.

#### Mission: Graduate Education

Graduate business education is built on a sound undergraduate foundation enriched by advanced theoretical knowledge and contemporary professional expertise. With this education, graduate students will develop a global managerial perspective. To achieve this mission, the School will

Emphasize advanced professional education that strengthens the ability to communicate ideas effectively within an increasingly complex environment, to manage ethically in a changing social milieu using contemporary management practices, and to develop attitudes that foster global competitiveness;

 Prepare graduate students to assume leadership roles of increasing responsibility in business, government, and not-forprofit organizations.

#### Mission: Community Outreach

Community outreach supports and complements the School's education functions and links the School to its environment. It is the School's and faculty's opportunity to offer distinctive services to special clientele: individuals, businesses, government, etc. This mission encompasses the School's efforts to weave lasting relationships with local government, industry and professional organizations and to retain and build on its diversity through recruitment of underrepresented faculty and students. To fulfill this mission, the School will

- Create client-focused educational opportunities and provide research services through the School's Centers and Institutes:
- Disseminate relevant research produced through the efforts of the faculty and the School's Centers and Institutes throughout the region in public forums and the media:
- Support faculty working collaboratively with local government agencies, businesses and professional organizations; and
- Ensure both a diverse student body and a diverse faculty through targeted recruitment, retention and development efforts.

#### Mission: Enhanced Intellectual Capital

The School's intellectual capital is the foundation on which the education mission rests. Therefore, faculty must be nurtured in their efforts to continuously build on their existing research and teaching strengths. To achieve a higher level of faculty development, the School will

- Support and encourage the theoretical and applied research activities of the faculty whether accomplished individually or as a collaborative endeavor, either within a discipline or as an interdisciplinary activity;
- Encourage applied research as it affects
   Orange County and/or supports and
   enhances the educational mission of the
   University;

- Aid and nurture faculty research efforts through various types of intramural grants and assist in their efforts for extramural grants;
- Support and encourage faculty seeking leadership roles within professional and academic organizations at all levels;
- Create an environment that supports teaching excellence, educational innovation, and curriculum development; and
- Promote an atmosphere that encourages a free intellectual exchange of ideas in an environment of academic freedom.

## PREPARATION FOR UNDERGRADUATE DEGREE PROGRAMS

Algebra and geometry are necessary for many required business courses. The equivalent of three years of high school mathematics, including a second course in algebra, is the prerequisite for the required Math 135 Business Calculus. Students without the necessary background should enroll in Math 115 College Algebra.

Proficiency in written English is essential to all college courses. Students should plan to take the written English component of General Education as soon as possible and take the English Writing Proficiency (EWP) examination while juniors.

Business students are encouraged to take courses in sociology, psychology, anthropology, speech communication, political science, history, philosophy, geography, and foreign languages. Many courses in these fields may be used to meet general education requirements. For the international business degree, intermediate level competency in a foreign language, equivalent to Foreign Language 204 courses, is prerequisite to the required concentration courses. It is strongly recommended that students planning to major in international business complete a minimum of three years of foreign language study while in high school.

#### BUSINESS ADVISING CENTER -LANGSDORF HALL, ROOM 700

#### Undergraduate Program Advising

The Business Advising Center serves business administration, economics and international business majors. Information is available on admissions, curriculum and graduation requirements, as well as on registration and grading procedures, residence and

similar academic matters. Transfer students should see an adviser immediately regarding transfer credit. For information on general education, consult the Academic Advisement Center.

#### Graduate Program Advising

The graduate adviser (in the Business Advising Center) provides academic advising for the graduate programs in accountancy, business administration, management science and taxation. Information is available on admissions, curriculum and graduation requirements, as well as on registration procedures, residence and similar academic matters. For information on admission, curriculum and graduation requirements for the M.A. in Economics, see the graduate program adviser in the Economics Department. Students should also consult the faculty advisers for the programs in accountancy, management science, and taxation.

#### TRANSFER CREDIT FOR BUSINESS AND ECONOMICS COURSES

Students should see an adviser as soon as possible regarding transfer credit. College level courses successfully completed at another college or university may be applied toward the requirements of the SBAE subject to the approval of the appropriate department chair. Lower division courses completed at an appropriately accredited institution with a grade of "C" or better that are equivalent in content and level may be considered. Upper division transfer courses will be considered if the course is (a) equivalent in content and level, (b) completed with a grade of "C" or better, and (c) taught in an American Assembly of Collegiate Schools of Business accredited program. Exceptions require thorough documentation evidencing the above standards. Lists of approved equivalent courses from local community colleges are available in the Business Advising Center. All other courses are subject to approval by the department chair concerned. In these cases, the student must supply catalog descriptions, course outlines and textbook titles. Courses taken in the extension division of another university, or by correspondence, are generally not acceptable.

### INTERNSHIPS AND COOPERATIVE EDUCATION

Students may earn academic credit, firsthand work experience and financial remuneration as well. Opportunities exist in accounting and auditing; cost-benefit analysis and econometrics; finance and real estate; insurance and banking; management and industrial relations; marketing, sales and advertising; and business data systems. For more information, consult the internship adviser in your department or in the Center for Internships and Cooperative Education.

#### STUDENT ORGANIZATIONS

Chapters of the following national honor societies have been established on campus with membership open to qualified students: Beta Alpha Psi (accounting), Beta Gamma Sigma (business), Financial Management Association Honor Society (finance), Omega Rho (MS/IS), Phi Kappa Phi (all-campus), Pi Sigma Epsilon (marketing). In addition there are the following clubs which students are encouraged to join: Accounting Society, Association Internaionale des Estdiantes en Sciences Economiques et Cxommerciales (AIESEC), American Marketing Association, Association of Information Technology Professionals (AITP), Business Inter-Club (BICC), Delta Sigma Pi (business fraternity), Economics Association, Finance Association, Society for the Advancement of Management (SAM), Trans-Pacific Leadership Program, Xicano Business.

#### SBAE GENERAL SCHOLARSHIPS

Stephen J. Barres Leadership Award

Day Runner, Inc. Graduate Fellowship in

Business

Richard Glassman Scholarship Irvine Company Scholarship

J.C. Penny Scholarship

La Puerta de Opportunidad Scholarship

National Electronics Distributors Association, Southern California Chapter Scholarship

Outstanding Student Award

Theodore H. Smith Outstanding Graduate Student Award

Frank P. Stanek Continuing Junior Scholarship

Francisco J. Valle Scholarship Yokohama Tire Corporation

See also awards listed under each department. For additional information on awards and scholarships available to business students, contact the Office of the Dean, Langsdorf Hall 700.

#### COMPUTER FACILITIES

The CSUF Computer Center in the Library and the SBAE Satellite Computer Laboratories in Langsdorf Hall are available for student use. Computer facilities are generally available evenings and weekends during the school year.

## INFORMATION ON THE DEGREE REQUIREMENTS

Information on degrees is located in the following department and program listings:

Accounting:

Accountancy, M.S.

Taxation, M.S.

Business Administration:

Business Administration, B.A.

Business Administration, Minor

Business Administration, M.B.A.

Economics:

Economics, B.A.

Economics, Minor

Economics, M.A.

International Business:

International Business, B.A.

Management Science/Information Systems

Management Science, M.S.

## school of

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**ASSISTANT DEAN, STUDENT AFFAIRS:** 

Education Classroom Building 48

DEAN:

Rick D. Pullen

**ASSOCIATE DEAN:** 

Fred Zandpour

**DEAN'S OFFICE:** 

Peggy Garcia Bockman

#### PROGRAMS OFFERED

Bachelor of Arts In Communications
Advertising

Photocommunications

Public Relations

Television-Film

Bachelor of Arts in Communicative Disorders

Bachelor of Arts in Speech Communication

Minor in Speech Communication

Master of Arts in Communications

Advertising

Journalism

Photocommunications

Public Relations

Television-Film

Master of Arts in Communicative Disorders

Clinical Rehabilitative Services Credential (CRSC) with

Special Class Authorization (SCA).

Master of Arts in Speech Communication

The School of Communications is committed to advancing a democratic society by preparing students to function in a wide variety of communication professions. With a strong tradition in the liberal arts and social sciences, the academic programs of the School share a common theoretical base which identifies the elements of human communication and the principles governing their use in all communicative processes essential to contemporary society, namely, the spoken and written word and visual images. Specialized programs in advertising, communication theory and process, intercultural, interpersonal, organizational communication, communication studies, communicative disorders, journalism, photocommunications, public relations, and television-film make up the

basic curricula of the School. These programs of study lead to traditional academic degrees for undergraduates and graduates, to state credentials and licenses, to professional certification, and to entry into graduate and professional degree programs.

Undergraduate students may call their department office for the name of their





adviser, who will assist in developing a program of study. University policy requires students to see an adviser each of their first two semesters and every year thereafter. Three critical times for advising are before registering for the first semester, when selecting electives for the study plan, and two semesters before graduation for a graduation check.

Graduate students should make contact with their department graduate adviser to arrange for advising prior to entry into the master's degree programs.

#### Student Organizations

The School of Communications supports a large number of student organizations and activities which provide a wide variety of preprofessional opportunities for academic advancement. They include: the Advertising Club; National Student Speech-Language-Hearing Association; Association of Speech Communication Students: Broadcast Production Association; Communications Week; Daily Titan; Debate (forensics); International Association of Business Communicators; Latino Communications Society; National Press Photographers Association; Photography Club; Public Relations Student Society of America; Society of Professional Journalists; and Women in Communication, Inc.

#### Accreditation

The Department of Communications is accredited by the Accrediting Council on Education in Journalism and Mass Communications. The Communicative Disorders program in the Department of Speech Communication is accredited by the American Speech-Language-Hearing Association.

#### Internships

A wide variety of student internships are available throughout Southern California. In the Department of Communications, students are required to complete an internship, unless specifically waived from doing so, normally as the culminating undergraduate experience. The Speech Communication's internship is normally taken some time in the junior or senior year.

#### Scholarships and Awards

Some \$30,000 in scholarships and awards is presented annually to students in the School of Communications. Among the sponsors of scholarships are the Advertising Club

of Orange County, the Business/Professional Advertising Association of Orange County, the Hearst Foundation, the Orange County chapter of the Public Relations Society of America, and the Los Angeles Times. Awards annually are presented to students who excel in academic and pre-professional activities in the two departments.

#### Facilities

The School of Communications is equipped with modern laboratory facilities including a sophisticated speech and hearing clinic; photography studio; two 20-station computerized writing laboratories; a MacIntosh-based graphics laboratory; a television studio, control room, and video editing bays; a film editing laboratory; and a daily newspaper newsroom and production

## school

**ASSOCIATE DEAN:** 

David Falconer

**ASSISTANT DEAN, STUDENT AFFAIRS:** 

Yuri Betancourt

**DEAN'S OFFICE:** 

Computer Science 502

#### **PROGRAMS OFFERED**

Bachelor of Science in Computer Science

Bachelor of Science in Civil Engineering

Emphasis in Architectural Engineering

Bachelor of Science in Electrical Engineering

Bachelor of Science in Engineering

Option in Engineering Science

Bachelor of Science in Mechanical Engineering

Emphasis in Manufacturing Engineering

Minor in Computer Science

Master of Science in Computer Science

Master of Science in Civil Engineering

Concentration in Environmental Engineering

Master of Science in Electrical Engineering

Option in Systems Engineering

Master of Science in Engineering

Option in Engineering Science

Master of Science in Mechanical Engineering

#### INTRODUCTION

The curricula of the School of Engineering and Computer Science are designed to prepare students for careers in engineering and computer science, and for further study and specialization in graduate work. The faculty of the school is actively involved not only in instruction and scholarship but also in the advisement of students on topics relating to the planning of career and program goals. Cooperative education and internship programs are available.

#### Engineering

Engineering is the application of scientific principles to the solution of practical problems. Engineers are professionals who employ the empirical art and techniques of engineering to the benefit of the society. Throughout the ages, human progress has been able to flourish due to the brilliant minds of engineers. Historical works, such as the Egyptian pyramids, the Roman aqueducts, and the Greek and Persian monuments, are examples of engineering ingenuity. In the contemporary world, the technological breakthroughs, such as computers, lasers, and robots, have become reality due to the creativity and imagination of engineers.

People-made wonders, such as the Hoover Dam, the Golden Gate Bridge, the Empire State Building, and the Gateway Arch on the Mississippi River, are examples of engineering ingenuity. Great inventors like Leonardo da Vinci, Galileo, James Watt, and Thomas Edison had exceptional engineering minds.

Engineers need a firm knowledge of the sciences and mathematics and must be able to analyze complex situations involving people, money, machines, and information in order to create workable and economical designs. Engineers often work with others in a team to develop





systems and products. The increasing technological complexity of modern society offers both opportunities as well as challenges to the engineering graduates of the future.

Engineers are employed in practically every field of human endeavor. This includes manufacturing, construction, education, government, health care, and business. As society becomes increasingly more technological, an engineering education provides a background for careers which will extend well into the 21st century. There is a real need for more engineering professionals, and so there are tremendous opportunities for everyone, including women and underrepresented minorities, in this field.

The School of Engineering and Computer Science has developed a reputation for excellence in its undergraduate and graduate engineering and computer science programs. The school is committed to providing the student with a solid preparation in the fundamental principles of engineering as an applied science as well as the practical experience to use these principles in the solution of engineering problems.

At CSUF students who are pursuing the bachelor's degrees in Engineering are affiliated with one of the school's three engineering departments: civil and environmental, electrical, or mechanical engineering. These programs are accredited by the Accreditation Board for Engineering and Technology (ABET).

Each engineering degree program incorporates the following three curricular areas:

- Mathematics and basic science courses such as physics and chemistry;
- Engineering topics courses such as thermodynamics, materials science, and electrical circuits, which provide a bridge between basic math/science and engineering practice and engineering design courses in which a system, component, process or structure is devised to meet a specific need;
- General education courses in the arts, humanities, and social sciences.

Each undergraduate program prepares students for entry into the engineering profession or for further study and specialization in graduate study.

#### Computer Science

Computer Science deals with all phases of information including its representation, storage, structure, display and the processes by which it is transformed and used.

Computer science professionals create new systems such as an inventory control system for a large manufacturer, or a navigational system for a new space computer, or a decision support system for the management of a bank. These people use their technical skills to convert specific needs into specialized programs, procedures, and systems that will actually do the job.

Students who pursue the Bachelor of Science in Computer Science degree at CSUF are prepared for careers in a variety of fields in business, government, and industry. The curriculum, which is accredited by the Computing Sciences Accreditation Board (CSAB), emphasizes fundamental concepts exemplified by various types of programming languages, computer architectures, operating systems, and data structures.

The computer science program focuses on several curricular objectives which are designed to provide the student with the foundations of the discipline and the opportunity for specialization. The department faculty are highly versed in the discipline through education and work experience.

The Computer Science Building houses five large computer science laboratories with an extensive range of computers and related equipment for student use. The building provides ample space for a full range of state-of-the-art systems and equipment that include parallel systems, computer networks, super-minicomputers, and high-resolution color graphics.

#### Undergraduate Student Advisement

Undergraduate students should call the department office of their major to arrange for advising and approval of their study plans. The School of Engineering and Computer Science has a policy of mandatory advising. Each undergraduate student must see an advisor at least once per year.

Students interested in programs in the school, but without a declared major should contact either the Engineering Division

Office or the Computer Science Department Office for advisement.

#### Graduate Student Advisement

Graduate students should consult the graduate adviser in their major department before registering for the first semester. No more than nine units may be completed before an approved study plan is filed.

#### Program in General Education

Because of high unit requirements for the Bachelor of Science in Engineering, these programs have modified requirements for general education. Students should consult the department for requirements.

Majors in the School of Engineering and Computer Science should take mathematics and other courses in related fields early. General education courses normally should be scheduled throughout the student's program of study.

#### MESA Engineering Program (MEP)

The MESA Engineering Program (MEP) is an academic support program designed to recruit, retain, and graduate students. MESA serves educationally disadvantaged students, to the extent possible by law, and emphasizes participation by students from groups with low eligibility rates for four-year colleges.

#### **MESA**

The goal of the Mathematics, Engineering, Science Achievement (MESA) program is to create opportunities for educationally disadvantaged students, especially those from groups with low college acceptance rates, to prepare for and enter colleges and universities in majors such as engineering, computer science and other mathematics-based scientific fields.

#### **Student Organizations**

There are 15 active student organizations in the school. These are student branches of American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), Association for Computing Machinery (ACM), Institute of Electrical and Electronics Engineers (IEEE), Society of Mexican-American Engineers and Scientists (MAES), National Society of Black Engineers (NSBE), Society of Automotive Engineers (SAE), California Chi Chapter of Tau Beta Pi, Society for the Advancement of Materials and Process Engineering (SAMPE), Society of Women Engineers (SWE), Society of Hispanic Professional Engineers, Eta Kappa Nu, Instruments Society of America (ISA), International Society for Pharmaceutical Engineering and Medical Device Professionals (ISPE) and Society of Manufacturing Engineers (SME). These 14 societies form the school's Interclub Council.

# SChool of human PROGRAMS OFFERED Child and Adolescent Development

SCHOOL OF HUMAN DEVELOPMENT & COMMUNITY SERVICE

DEAN:

Soraya Coley

**ASSOCIATE DEAN:** 

Don Martin

**ASSISTANT DEAN, STUDENT AFFAIRS:** 

Nancee Buck

**DEAN'S OFFICE:** 

Education Classroom Building 324

Minor

Master of Science

Education

Master of Science

Concentrations in

Bilingual/Bicultural Education (Spanish-English)

Elementary Curriculum and Instruction

Reading

Educational Administration

Special Education

Teaching English to Speakers of Other Languages (For further information refer to the Department of Foreign Languages and Literatures section of this catalog.)

Teaching Credentials

See Teaching Credential Programs section of this catalog.

Health Promotion

Minor

Health Science

Bachelor of Science

Human Services

Bachelor of Science

Minor

Kinesiology

Bachelor of Science

Master of Science

Minor

Military Science

Minor

Second Lieutenant Commission, U.S. Army

Nursing

Bachelor of Science

The School of Human Development and Community Service provides students with an education that contributes to their intellectual, personal and professional development. The school offers programs that prepare students for professional fields of the greatest human concern in our richly diverse society: the education and development of our children, and the physical and mental health of all members of our community. Programs in the school lead to traditional academic degrees at the baccalaureate and graduate levels as well as to a variety of specific certificates, credentials, and licenses.



The School of Human Development and Community Service is organized into the following instructional units: the Department of Child and Adolescent Studies; the Department of Counseling; the Department of Educational Leadership; the Department of Elementary, Bilingual and Reading Education; the Department of Kinesiology and Health Promotion; the Department of Human Services; the Military Science Program; the Department of Nursing; the Department of Secondary Education, and the Department of Special Education.

#### **SCHOOL OF HDCS COURSES**

#### 410 Theory and Methods of Service Integration (3) (Formerly 500)

Prerequisite: Child/Adolescent Studies 210 or Human Services 201 or consent of instructor. Interdisciplinary study of current services systems; changing environment of children/family systems; methods of negotiating collaboration at the policy level, providing integrated services at the client/worker level, and planning community-based services; outcomes-based funding and evaluation. Fieldwork required.

## 411 Practicum in Services Integration (3) (Formerly 501)

Prerequisite: HDCS 410. Techniques and practices in needs assessment and program evaluation in integrated services serving children and families. Includes design and evaluation of systems for collaborative practice.

## school of humanities

and so

SCHOOL OF HUMANITIES & SOCIAL SCIENCES

DEAN:

Donald S. Castro

ASSOCIATE DEAN:

Vacant

ASSOCIATE DEAN, STUDENT ACADEMIC AFFAIRS:

Angela Della Volpe

**ASSISTANT DEAN, STUDENT AFFAIRS:** 

Kevin Colaner

**DEAN'S OFFICE:** 

McCarthy Hall 115

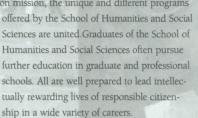


The School of Humanities and Social Sciences is composed of 15 departments, 8 cross-disciplinary programs and 5 special study centers. These units offer programs of study leading to 28 different minors, bachelor's degrees in 21 disciplines, 2 post-baccalaureate certificates, and master's degrees in 18 areas. Some of these programs represent traditional areas of intellectual inquiry, others focus on emerging topics of study, and still others are professionally oriented.

The School of Humanities and Social Sciences is of central importance to the University's mission of fostering free inquiry and critical thinking. The School sees itself as having a unique role in offering a curriculum that examines and evaluates discourses on cultural diversity and the human condition. This curriculum contributes to the development of socio-civic goals that uphold and safeguard human dignity. Through a commitment to humanistic scholarship, the School enables students to comprehend a wide range of experience and diverse vision of human life and self-understanding. Through a commitment to analytic and empirical studies, the School promotes scientific understanding of humankind and society. Through collaborative investigation of these philosophical and theoretical foundations, faculty and students of the School promote the

ideals of a liberal education, thereby affirming enlightened cultural criticism, inquiry into the nature of knowledge, and the exploration and integration of holistic perspectives and learning experiences. Thus, the School has a central role in the development and maintenance of a variety of General Education courses to enrich and provide coherence in the learning experience of all students in the University. The School of Humanities and Social Sciences is dedicated to making learning preeminent through excellence in teaching and research and by having a curriculum that reflects an appreciation of past and current cultures within a global context. The School is also dedicated to serving the community through professional programs, applied research, internships and service learning programs, and the training of students to disseminate knowledge produced through humanistic and scientific inquiry. Through the accomplishment of this common mission, the unique and different programs

> Sciences are united. Graduates of the School of Humanities and Social Sciences often pursue further education in graduate and professional schools. All are well prepared to lead intellectually rewarding lives of responsible citizen-



Academic advisement is provided by each of the departments and programs within the school. In addition, the school maintains an academic advisement office in McCarthy Hall 103 to assist students and to provide general coordination of advisement within the school.

Numerous academic student organizations within the School of Humanities and Social Sciences provide opportunities for students to develop and practice leadership. The School's Student Advisory Council helps to coordinate student activities, serves as a forum for student opinion, promotes student-faculty collaboration, and advises the Dean regarding the educational needs of students in the School. Co-curricular learning experiences are facilitated and coordinated through the Assistant Dean for Student Affairs.



#### **PROGRAMS OFFERED**

Afro-Ethnic Studies (Option in B.A. Ethnic Studies, Minor)

American Studies (M.A., B.A., Minor)

Anthropology (M.A., B.A., Minor)

Asian Studies (Minor)

Asian American Studies (Minor)

Chicano Studies (Option in B.A. Ethnic Studies, Minor)

Comparative Literature (M.A., B.A.)

Criminal Justice (B.A., Minor)

English (M.A., B.A., Minor)

Subject Matter Preparation Program in English for Secondary Teaching Credential.

Environmental Studies (M.S.)

Ethnic Studies (B.A.)

French (M.A., B.A., Minor)

Concentration in B.A. International Business

Subject Matter Preparation Program in French for Secondary Teaching Credential.

Geography (M.A., B.A., Minor)

German (M.A., B.A., Minor)

Concentration in B.A. International Business

Subject Matter Preparation Program in German for Secondary Teaching Credential.

Gerontology (Minor, Certificate)

History (M.A., B.A., Minor)

International Politics (Minor)

Japanese (B.A., Minor)

Concentration in B.A. International Business

Subject Matter Preparation Program in Japanese for Secondary Teaching Credential.

Latin American Studies (B.A., Minor)

Liberal Studies (B.A.)

Linguistics (M.A., B.A., Minor)

Peace Studies (Minor)

Philosophy (B.A., Minor)

Political Science (M.A., B.A., Minor)

Portuguese (Minor)

Concentration in B.A. International Business

Subject Matter Preparation Program in Portuguese for Secondary Teaching Credential.

Psychology (M.A., M.S., B.A., Minor)

Public Administration (M.P.A., Concentration in B.A. Political Science, Minor)

Religious Studies (B.A., Minor)

Russian and East European Area Studies (B.A.)

Sociology (M.A., B.A., Minor)

Spanish (M.A., B.A., Minor)

Concentration in B.A. International Business

Subject Matter Preparation Program in Spanish for Secondary Teaching Credential.

Teachers of English as a Second Language (Certificate)

Teaching English to Speakers of Other

Languages-TESOL (Concentration in

M.S. Education)

Women's Studies (B.A., Minor)

#### **HUMANITIES COURSE**

#### 350 British Life and Culture (3)

Interdisciplinary introduction to British culture and civilization. Takes a social, historical and cultural approach to contemporary British society. Examines traditions and institutions to help understand 20th Century British life. Related field trips. Teamtaught. Offered only as part of the CSUF London semester.

## school of **PROGRAMS OFFERED** natural

Biological Science, B.S.

ience

Biotechnology, Minor

Chemistry, B.A., B.S., Minor, M.S.

Geology, B.S., Minor, M.A. CLLCS

Mathematics, B.A., Minor, M.A. CLLCS

Physics, B.S., Minor, M.S.

Science, M.A.T.S.

Teaching Credentials

Subject Matter Preparation Program for Single Subject Credential in Science Subject Matter Preparation Program for Single Subject Credential

in Mathematics

SCHOOL OF NATURAL SCIENCE & MATHEMATICS

DEAN:

Kolf O. Jayaweera

#### **ASSOCIATE DEAN:**

David Fromson

#### **ASSISTANT DEAN, STUDENT AFFAIRS:**

Daniel Stallings

#### DEAN'S OFFICE:

McCarthy Hall 166

dents for careers in scientific, mathematical, and other technical fields, for further study and specialization in advanced graduate work, and for entry into professional schools of medicine and other health-related disciplines. The faculty of the school is actively involved not only in instruction and scholarship but also in the advisement of students in the school on topics relating to the planning of career and

The curricula of the School of Natural Science and Mathematics are designed to prepare stu-

program goals. Cooperative education internship programs are available in each of the School's Departments.

The School sponsors a variety of professional and educational programs at which students and faculty have an opportunity to meet with their counterparts.

Recommended Preparation: For a career in mathematics or science, a sound foundation is essential. High school preparation should include:

- At least three, preferably four, years of mathematics
- Chemistry and/or physics, preferably both
- Two or three years of foreign language. Community college preparation should include at the minimum:
- College writing
- Calculus
- College chemistry
- First course in the major.





Qualifying Examinations: Enrollment in introductory courses is restricted to those who are adequately prepared, as shown by performance on qualifying examinations. In addition, the Entry Level Mathematics (ELM) examination is required of all students unless exempt.

## UNDERGRADUATE STUDENT ADVISEMENT

Undergraduate students should call the department office of their major to arrange for advising and approval of their study plan. University policy requires students to see an adviser each of their first two semesters and every year thereafter. Most departments prefer to advise their majors more frequently.

Students interested in programs in the School, but without a declared major should call the Office of the Dean for advisement.

## ADVISEMENT FOR HEALTH PROFESSIONS

It is important for any student interested in a career in the health professions to seek advisement at the Health Professions Office prior to registering for the first semester.

#### **GRADUATE STUDENT ADVISEMENT**

Graduate students should consult the graduate adviser in their major department before registering for the first semester. No more than nine units may be completed before an approved study plan is filed.

#### SCHOLARSHIPS AND AWARDS

#### General

Diefenderfer Award: made annually to an outstanding woman or minority student.

School of Natural Science and Mathematicsí Scholarship for Scholastic Achievement

Jewell Plummer Cobb Scholarship for Scholastic Achievement: awarded to an outstanding, under-represented science major.

#### Health Professions

Miles McCarthy Health Professions Award: annual award to the outstanding graduate from the program for the health professions.

Kenneth Goodhue-McWilliams Award: for outstanding contributions to community service by a health professions student

#### Chemistry and Biochemistry

American Chemical Society Award: recognizes a graduating senior ChemistryBiochemistry major for exemplary academic achievement.

American Institute of Chemists Award: made to a graduating senior who has demonstrated outstanding scholarship and undergraduate research.

The Lyle Wallace Award: for service to the Department of Chemistry and Biochemistry.

The Hypercube Scholar Award recognizes a graduating senior for accomplishments in molecular modeling/computational chemistry.

Other awards made by the Department of Chemistry and Biochemistry are the Freshman Chemistry Award, and the Undergraduate Awards for Achievement in Organic Chemistry and in Analytical Chemistry.

#### Biology

Rachel Carson Award: a commemoration of the ideals of Rachel Carson.

Friends of the Arboretum, David L.

Walkington Scholarship: for an outstanding biology student who has chosen
Botany for a career.

Dr. and Mrs. Donald B. Bright Environmental Scholarship: for students interested in careers in Environmental Biology.

#### Geology

Department of Geological Science: for outstanding graduating senior students for service and scholarship.

Margaret Skillman Woyski Scholarship: for a woman Geology major for outstanding academic achievement and teaching.

#### Mathematics

Department of Mathematics recognizes excellent academic achievement by both undergraduate and graduate students in a number of awards, including the Outstanding Teaching Award, the Outstanding Math Scholar, The Math Club Scholarship and the Lila B. Hromadka Award.

#### Physics

The Dan Black Schoolarship provides support to a junior Physics major based on need and promise, and is renewable for the senior year.

The Department of Physics honors the memory of Edward Lee Cooperman, and a scholarship in his name goes to an outstanding student. The Constance Beech Eiker-

Raymond V. Adams Creativity Award is given to a student who developed an outstanding set of instructional laboratory experiments. The Dr. Robert W. Kedzie Award recognizes the most improved Physics major.

#### **FUNDED RESEARCH OPPORTUNITIES**

#### Beckman Scholars Program

Funded by the Arnold and Ambel Beckman Foundation, gives four outstanding students in Biology, Chemistry or Biochemistry, research support for one academic year and two summers.

### MARC (Minority Access to Research Careers )

Program-NIH-supported program develops six exceptional scholars and prepares them for success in PhD programs.

## MSD (Minority Student Development) Program

This NIH-funded program supports the research of 25 undergraduates who work in labs of 14 faculty.

## REU (Research Experience for Undergraduates) Program

Provides students interested in research, who might not otherwise have the opportunity, because of economic constraints, to carry out the research intensively during the summer months.

## MIRT (Minority International Research Training) Program

NIH-sponsored program that provides minority students with the opportunity to carry out research during the summer at laboratories in England.

#### Bridges-to-the-Doctorate Program

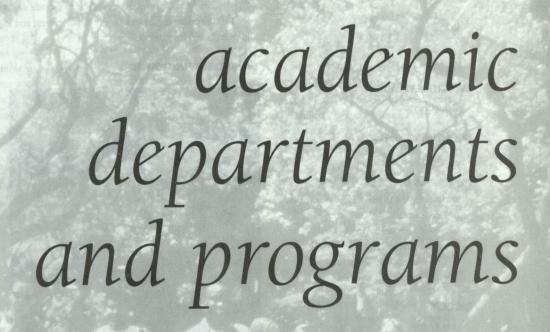
NIH-funded program facilities admission of our masters-level minority research students to PhD programs at UC Riverside and UC San Diego.

## RECOMMENDED PROGRAM IN GENERAL EDUCATION

Majors in the School of Natural Science and Mathematics should take mathematics and other courses in related fields early early in their academic careers. General education courses normally should be scheduled throughout the study sequence.

Because of high unit requirements for the Bachelor of Science in Chemistry, this program has modified requirements for general education. Students should consult the department for particulars.

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## accounting

#### DEPARTMENT CHAIR

Betty Chavis

#### **DEPARTMENT OFFICE**

Langsdorf Hall 630

#### **PROGRAMS OFFERED**

Bachelor of Arts in Business Administration
Concentration in Accounting
Master of Science in Accountancy
Master of Business Administration
Concentration in Accounting
Master of Science in Taxation

#### FACULTY

Jon Andrus, Betty Chavis, Mary Fleming, Paul Foote, O. Clyde Hardman, Mahamood Hassan, A. Jay Hirsch, Gerald Hoth, K.J. Kim, Andrew Luzi, Robert McCabe, Robert Miller, Christopher Petruzzi, Shirish Seth, Ephraim Smith, Randy Swad.

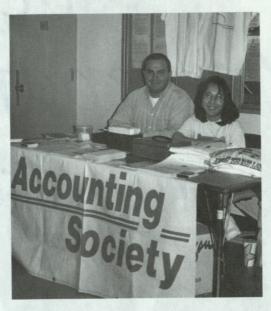
#### **ADVISERS**

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, the Accounting Department Chair provides advising on curriculum content and career opportunities in Accounting, the CPA Examination, and Taxation.

#### MISSION STATEMENT

The Accounting Department's mission is to provide a strong regional presence for accounting education, to insure continuous faculty improvement, and to promote interaction with business and professional communities.

#### **DEPARTMENT OBJECTIVES**



#### Undergraduate Education

To provide a competency based education in accounting that qualifies accounting majors for entry-level accounting positions in private industry, government, public accounting or for not-for-profit organizations. The undergraduate education also will provide a foundation for advancement through professional certification and success in graduate studies.

#### Graduate Education

To provide advanced professional education that strengthens the skills of graduate students in both general and technical competencies and enhances the student's

ability to enter or continue in leadership roles and develop increased professional responsibilities in private industry, government, public accounting or for not-for-profit organizations.

#### **Educational Support**

To serve the educational needs of the School of Business Administration and Economics as well as other schools and departments of the University by teaching various accounting subjects as may be required or requested within the resource constraints of the Department.

#### **Enhanced Intellectual Capital**

To enhance the intellectual capacity of its faculty by encouraging and supporting fundamental and applied research as well as faculty development activities. This includes support of active participation and leadership in local, regional and national academic and professional accounting organizations.

#### Community Outreach

To support student and alumni activities and encourage outreach activities that address accounting needs of the local, regional and global communities. This includes developing strong ongoing relationships with local and regional employers and supporters of an enhanced academic environment.

#### INTRODUCTION

Accounting is often referred to as "the language of business." Very generally, the accounting process is concerned with recording, classifying, reporting and interpreting the economic data of an organization. These data are important to users, who may include managers, investors and other interested groups. Accounting helps in decision-making processes by showing how money

has been spent and where commitments have been made, by judging performance and by showing the implications of following different courses of action. Reliable information in a dynamic business environment is necessary for sound decisions concerning the allocation of scarce resources. Thus accounting plays a very significant part in our social and economic systems.

Programs in accounting are designed for students who are interested in careers in public accounting, industry, government, or service organizations, and for students who intend to work for advanced degrees in accounting in preparation for teaching and research.

#### Credential Information

The Department of Accounting offers courses which may be included in the Single Subject Waiver Program in Business. Further information on the requirements for teaching credentials is contained in the Teacher Credential Programs section of this catalog.

#### Awards in Accounting

Accounting Focus Group Awards:

GPA Award

Communications Award

Community Service Award

Outstanding Student Award

Beta Alpha Psi Award

Accounting Society Award

#### Other Awards:

American Society of Women Accountants, Orange County Chapter

Amy Vanasse Memorial Award

Association of Government Accountants
Award

Awards from various CPA review firms

California Society of CPAs

Cynthia A. Brown Memorial Scholarship

Institute of Internal Auditors Award

Institute of Management Accountants
Award

### BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration Degrees, Accounting Concentration."

### MASTER OF SCIENCE IN ACCOUNTANCY

The Master of Science in Accountancy program provides the conceptual understanding and technical competence for a career in professional accounting. Employment opportunities include public accounting, industrial accounting and government. The program encompasses both a theoretical foundation and technical skills. Emphasis is placed on the development of a professional attitude and the capacity to deal with issues of accounting policy and ethics. Graduates should be prepared for entry-level positions, and for potential advancement in the profession.

The M.S. in Accountancy program is scheduled especially for students who are employed full-time. Courses are offered during the late afternoon and evening. Most students enroll on a part-time basis, taking two courses (6 units) per semester.

The curriculum is designed for students with an undergraduate degree in business administration with a concentration in accounting. In addition to six units of required accounting courses, there are 12 units of accounting electives, nine units outside accounting but in related business areas, and a terminal, research-project course. Students not holding an undergraduate degree in accounting or business may apply; qualified candidates will be admitted to postbaccalaureate-unclassified standing or conditionally classified standing as explained in the Admissions section below.

Cal State Fullerton is accredited by the American Assembly of Collegiate Schools of Business at both the undergraduate and graduate level. This assures a rigorous program, a well qualified faculty, high standards for students, and access to an extensive library system and computing facilities. The qualifications of the M.S. in Accountancy faculty include advanced degrees in accounting, taxation, and law; practical experience; and professional standing as CPAs, CMAs, and attorneys.

Most graduate courses in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.B.A., M.S. in Accountancy, M.S. in Taxation, M.S. in Management Science, or M.A. in Economics programs.

#### Admission

Students meeting the following requirements will be admitted to postbaccalaureate-unclassified standing.

- Acceptable bachelor's degree from an institution accredited by a regional accrediting association, or equivalent.
- Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at the last college attended.

Note: Postbaccalaureate-unclassified students may enroll in undergraduate courses (100 through 400 level) but generally are ineligible for graduate business courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Postbaccalaureate/Graduate Change of Academic Objective" requesting admission to the M.S. in Accountancy program. Admission to the university as a postbaccalaureate-unclassified student does not constitute admission to the M.S. in Accountancy program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the M.S. in Accountancy program should confer with the graduate adviser in the School of Business Administration and Economics.

Students meeting the following departmental requirements may be admitted to the M.S. in Accountancy program with conditionally classified standing:

- Combination of GPA and score on the Graduate Management Admission Test (GMAT) sufficient to yield a score of at least 1000 according to one of the following formulas. Due to limited facilities and resources in the School of Business Administration and Economics, a higher score may be required of all applicants.
  - A. If overall undergraduate GPA is at least 2.7 and GMAT is at least 450, then score = (GPA x 200) + GMAT.
  - B. If overall undergraduate GPA is below 2.7 or GMAT is below 450, then score = (GPA x 200) + GMAT 50.
- 4. A score in the top 50 percent on the verbal, analytical and quantitative areas of the GMAT. Students who do not reach this level are required to complete a department approved course(s).

For international students a TOEFL score
of 570. A student scoring between 550
and 570 may be admitted conditionally
depending upon an evaluation of the
entire application file. The student may
be required to complete a department
approved course(s).

Conditionally classified students may take a limited number of graduate courses (500 level) subject to the approval of the graduate adviser of the School of Business Administration and Economics. Students may take whatever courses are necessary to fulfill requirement 4 and 6 (below) while enrolled as conditionally classified students. In addition, a maximum of 9 units (three courses) from the M.S. in Accountancy curriculum may be taken while in conditionally classified standing.

Students meeting the following additional requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they qualify.

6. A bachelor's degree with a major in business administration and a concentration in accounting which meets the requirements stated in this catalog for such degrees. The degree must include calculus and computer information systems equivalent to passing Mathematics 135, Business Calculus (3 units) and Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3 units), with grades of at least C. Courses in the major are to be no more than seven years old, and courses in the accounting concentration no more than five years old. Courses in the major (including the accounting concentration) must have at least a 3.0 (B) GPA; courses with grades lower than C must be repeated with at least a C grade. Any deficiencies must be made up by taking additional course work. Applicants with a bachelor's degree in a field other than Business Administration may meet this requirement by completing the courses in calculus and computer information systems (above) with grades of at least C, courses in the accounting concentration, and also the Foundation Courses within the curriculum of the Master of Business Administration (27 units, including Accounting 510; Business Admin 590; Economics 515; Finance 517; Management 515, 516, 518; Management Sci/Info Systems 513, and Marketing 519). Both the accounting concentration courses and the MBA Foundation Courses must have at least a 3.0 (B) GPA; accounting concentration courses and Foundation Courses with grades lower than C must be repeated with at least a C grade.

7. Approval of study plan.

#### Curriculum

The curriculum requires 30 semester units of course work beyond the baccalaureate degree. At least 24 of the 30 units required for the degree must be at the graduate level. A 3.0 GPA (B) is required in study plan courses and overall applicable course work. Any study plan course with a grade lower than C must be repeated with at least a C grade.

#### Required Courses (6 units)

Accounting 502 Seminar in Accounting Theory (3)

Accounting 505 Seminar in Auditing (3)

OR Accounting 521 Seminar in Administrative Accounting (3)

#### Electives in Accounting (12 units)

Four courses (12 units) to be selected in consultation with and approved by the student's program adviser. At least one course but not more than two must be tax-related (denoted by an asterisk in the list below) for a maximum of six units in tax-related courses.

Accounting 503 Seminar in Accounting Problems (3)

Accounting 505 Seminar in Auditing (3)

Accounting 506 Seminar in Professional Accounting Communications (3)

Accounting 507 Seminar in Accounting Information Systems (3)

Accounting 508 Seminar in Tax Planning (3)\*

Accounting 518 Seminar in International Accounting (3)

Accounting 521 Seminar in Administrative Accounting (3)

Accounting 572 Seminar in Taxation of Corporations and Shareholders (3)\*

Accounting 573 Seminar in Taxation of Property Transactions (3)\*

Accounting 574 Seminar in Taxation of International Business Operations (3)\*

Accounting 575 Seminar in Estate, Gift, Inheritance Taxes and Estate Planning (3)\*

Accounting 576 Seminar in State and Local Taxation (3)\*

Accounting 577 Seminar in Taxation of Employee Compensation (3)\*

Accounting 578 Seminar in Taxation of Partnerships (3)\*

\*Tax Course

#### Other Electives (9)

Three courses (9 units) at the 400- or 500-level in business or related areas, to be selected in consultation with, and approved by the student's adviser. Accounting courses may not be used to satisfy this requirement.

#### **Terminal Evaluation**

Accounting 597 Project (3)

## MASTER OF BUSINESS ADMINISTRATION

See "Business Administration Degrees, Accounting Concentration."

#### **MASTER OF SCIENCE IN TAXATION**

The Master of Science in Taxation program provides the conceptual understanding and technical competence for a career in taxation. Employment opportunities include the tax departments of CPA and law firms, as well as corporations and government tax agencies. For those already employed in this field, the M.S. in Taxation program should meet the continuing education requirements of professional associations and licensing boards.

The M.S. in Taxation program is scheduled especially for students who are employed full-time. Courses are offered during the late afternoon and evening. Most students enroll on a part-time basis, taking two courses (6 units) per semester.

The curriculum is designed for students with an undergraduate degree in business administration or accounting. In addition to six required courses in the field of taxation, there are three electives and a terminal, research-project course. Students not holding an undergraduate degree in accounting or business may apply; qualified candidates will be admitted to post-baccalaureate-unclassified standing or conditionally classified standing as explained in the Admissions section, below.

Cal State Fullerton is accredited by the American Assembly of Collegiate Schools of Business at both the undergraduate and graduate level. This assures a rigorous program, a well-qualified faculty, high standards for students, and access to an extensive library

system and computing facilities. The qualifications of the M.S. in Taxation faculty include advanced degrees in taxation, accounting, and law; practical tax experience; and professional standing as CPAs and attorneys.

Most graduate courses in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.B.A., M.S. in Accountancy, M.S. in Taxation, M.S. in Management Science, or M.A. in Economics programs.

#### Admission

Students meeting the following requirements will be admitted to post-baccalaureate-unclassified standing:

- Acceptable bachelor's degree from an institution accredited by a regional accrediting association, or equivalent.
- Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at the last college attended.

Note: Postbaccalaureate unclassified students may enroll in undergraduate courses (100 through 400 level) but are generally ineligible for graduate business courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Postbaccalaureate/Graduate Change of Academic Objective" requesting admission to the M.S. in Taxation program. Admission to the university as a postbaccalaureate-unclassified student does not constitute admission to the M.S. in Taxation program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the M.S. in Taxation program should confer with the graduate adviser in the School of Business Administration and Economics.

Students meeting the following departmental requirements will be admitted to the M.S. in Taxation program with conditionally classified standing:

3. Combination of GPA and score on the Graduate Management Admission Test (GMAT) sufficient to yield a score of at least 1000 according to one of the following formulas. Due to limited facilities and resources in the School of Business Administration and Economics, a higher score may be required of all applicants.

- A. If overall undergraduate GPA is at least 2.7 and GMAT is at least 450, then score = (GPA x 200) + GMAT.
- B. If overall undergraduate GPA is below 2.7 or GMAT is below 450, then score = (GPA x 200) + GMAT 50.
- A score in the top 50 percent on the verbal, analytical and quantitative areas of the GMAT. Students who do not reach this level are required to complete a department approved course(s).
- 5. For international students a TOEFL score of 570. A student scoring between 550 and 570 may be admitted conditionally depending upon an evaluation of the entire application file. The student may be required to complete a department approved course(s).

Conditionally classified students may take a limited number of graduate courses (500 level) subject to the approval of the graduate adviser of the School of Business Administration and Economics. Students may take whatever courses are necessary to fulfill requirement 4 and 6 (below) while enrolled as conditionally classified students. In addition, a maximum of 9 units (three courses) from the M.S. in Taxation curriculum may be taken while in conditionally classified standing,

Students meeting the following additional requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they qualify.

6. A bachelor's degree with a major in business administration which meets the requirements stated in this catalog for such degrees, and Accounting 308, Concepts of Federal Income Tax Accounting (or an equivalent course or work experience). The degree must include calculus and computer information systems equivalent to passing Mathematics 135, Business Calculus (3 units) and Manag Sci/Info Sys 265, Introduction to Computing and Programming Concepts (3 units), with grades of at least C. Courses in the major are to be no more than seven years old and must have at least a 3.0 (B) GPA; courses with grades lower than C must be repeated with at least a C grade. Applicants with a bachelor's degree in a field other than Business Administration may meet this requirement by completing the courses in calculus and computer information systems (above) with grades of at least *C*, Accounting 308 with a grade of at least *C*, and also the Foundation Courses within the curriculum of the Master of Business Administration (27 units, including Accounting 510; Business Admin 590; Economics 515; Finance 517; Management 515, 516, 518; Manag Sci/Info Sys 513, and Marketing 519). The MBA Foundation Courses must have at least a 3.0 (B) GPA; Foundation Courses with grades lower than *C* must be repeated with at least a *C* grade.

7. Approval of study plan.

#### Curriculum

The curriculum requires 30 semester units of course work beyond the baccalaureate degree. At least 21 of the 30 units required for the degree must be at the graduate level. A 3.0 GPA (B) is required in study plan courses and overall applicable course work. Any study plan course with a grade lower than C must be repeated with at least a C grade.

#### Required Tax Course

Accounting 470 Tax Research, Practice and Procedures (3)

#### Electives in Taxation and Related Fields

Five courses (15 units) to be selected in consultation with, and approved by, the student's program adviser.

Available courses include but are not limited to:

Accounting 408 Problems in Taxation (3)

Accounting 508 Seminar in Tax Planning (3)

Accounting 572 Seminar in Taxation of Corporations and Shareholders (3)

Accounting 573 Seminar in Taxation of Property Transactions (3)

Accounting 574 Seminar in Taxation of International Business Operations (3)

Accounting 575 Seminar in Estate, Gift, Inheritance Taxes and Estate Planning (3)

Accounting 576 Seminar in State and Local Taxation (3)

Accounting 577 Seminar in Taxation of Employee Compensation (3)

Accounting 578 Seminar in Taxation of Partnerships (3)

#### Other Electives

Courses are to be selected in consultation with, and approved by, the student's adviser.

One course (3 units) in either economics or political science and two courses (6 units) in either business or non-business fields.

Note: recommended courses in economics and political science include Econ 517, Poli Sci 421, 519, 528.

#### **Terminal Evaluation**

Accounting 597 Project (3)

#### **ACCOUNTING COURSES**

#### 201A Financial Accounting (3)

Prerequisite: None. Accounting concepts and techniques essential to the administration of a business enterprise: analyzing and recording financial transactions; accounting valuation and allocation practices; preparation, analysis and interpretation of financial statements; international accounting issues. (Not open to freshmen)

#### 201B Managerial Accounting (3)

Prerequisite: Accounting 201A.

Introduction to managerial accounting; product costing; budgetary control and responsibility accounting; analysis and techniques for aiding management planning and control decisions; basic income tax concepts for planning business transactions. (Not open to freshmen)

#### 301A,B Intermediate Accounting (3,3)

Prerequisites for 301A: Accounting 201B, a passing score on the accounting qualifying examination, and completion of all lower division business administration core courses with grades of at least *C* in each course.

Corequisite: Business Admin 301. Prerequisite for 301B: A grade of *C* or better in Accounting 301A Accounting Theory; preparation of income statements, balance sheets and statements of changes in financial position; present value and amount concepts; assets, liabilities and stockholders equity; price-level accounting; pensions; leases; earnings per share; financial statement analysis; accounting changes and error analysis.

#### 302 Cost Accounting (3)

Prerequisites: Accounting 201B, a passing score on the accounting qualifying examination, and completion of all lower division business administration core courses with grades of at least C in each course, or a grade of C or better in 301A. Corequisite: Business Admin 301. Accounting information for management of manufacturing enterprises; cost records; cost behavior and allocation; product costing and inventory valuation; flexible budgeting; standard costs; responsibility accounting; cost planning and control; and operating decision analysis.

#### 308 Concepts of Federal Income Tax Accounting (3)

Prerequisites: Accounting 201B, a passing score on the accounting qualifying examination, and completion of all lower division business administration core courses with grades of at least *C* in each course, or a grade of *C* or better in 301A. Corequisite: Business Admin 301. Provisions, legislative history and implications of the federal income tax.

#### 358 Principles of Taxation (3)

Prerequisite: Accounting 201A or instructor permission. The federal tax system, federal income taxation relating to federal tax system, federal income taxation relating to individuals, corporations, partnerships, and fiduciaries. Federal estate and gift taxes. Not open to accounting majors.

#### 401 Advanced Accounting (3)

Prerequisites: Accounting 301B with a grade of *C* or better, Business Admin 301. Business combinations; meaning, usefulness and methodology of consolidated financial statements; investments in non-subsidiary affiliates and corporate joint ventures; consolidated financial statements for overseas units of U.S.-based multinational companies; translations of foreign currencies.

#### 402 Auditing (3)

Prerequisites: Accounting 301B and 302 with grades of C or better, Business Admin 301. The auditing standards and procedures used by financial and operational auditors. Management information and computer systems, internal control, audit evidence, professional responsibilities and legal liabilities, standards of reporting financial information.

## 403 Accounting for Governmental & Nonprofit Entities (3)

Prerequisites: Accounting 301B with grade of C or better, Business Admin 301. Fund accounting as applied to governmental and nonprofit entities; state and federal governments, municipalities, hospitals and universities. Budgets, tax levies, revenues and appropriations, expenditures and encumbrances, various types of funds, and accounting statements.

#### 407 Accounting Information Systems (3)

Prerequisites: Accounting 301A and 302 with grades of C or better and Manag Sci/Info Sys 265 or equivalent, Business Admin 301. Alternative accounting systems used for the collection, organization and presentation of information. Theory and practice of information processing: organizational, behavioral and mechanical.

#### 408 Problems in Taxation (3)

Prerequisites: Accounting 308 with a grade of C or better, Business Admin 301. Federal income tax as it applies to corporations, partnerships, fiduciaries, and federal estate and gift taxes as they apply to taxable transfers.

## 460 Seminar in Financial Statement Analysis (3)

Prerequisites: Accounting 301B, Business Admin 301, Manag Sci/Info Sys 361B.

Analysis of demand and supply forces underlying the provision of financial statements; distributional, cross-sectional and time series properties of financial statement numbers; financial decision-making processes and the uses of financial statement information for decision making.

## 470 Tax Research, Practice and Procedures (3)

Prerequisites: Accounting 308 with a grade of C or better, Business Admin 301. The methodology of tax research including case studies; the management of a tax practice; administration procedures governing tax controversies; rights and obligations of taxpayers and tax practitioners.

#### 495 Internship (1-3)

Prerequisites: Accounting 301B (may be taken concurrently), Accounting 302, Business Admin 301, a concentration in accounting, consent of the department internship adviser, and at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

#### 499 Independent Study (1-3)

Prerequisites: Business Admin 301, senior standing, approval of department chair. Open to qualified undergraduate students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

#### 502 Seminar in Accounting Theory (3)

Prerequisites: Accounting 301B, classified SBAE status. The effects of professional, governmental, business, and social forces on the evolution of accounting theory.

#### 503 Seminar in Contemporary Accounting Problems (3)

Prerequisite: classified M.S. in Accounting status. Current issues in financial reporting including pronouncements by the Financial Accounting Standards Board and the Securities and Exchange Commission. Coverage of topics will change as new issues in accounting emerge.

#### 505 Seminar in Auditing (3)

Prerequisites: Accounting 402 and classified SBAE status. Auditing theory and practices; professional ethics; auditing standards; Securities and Exchange Commission and stock exchange regulations; auditor's legal liability; statement trends and techniques.

#### 506 Seminar in Professional Accounting Communications (3)

Prerequisite: classified M.S. in Accounting status. Compilation and composition of accounting reports and client presentations relating to accountants' working papers, client engagement letters, management advisory reports and prospectuses.

#### 507 Seminar in Accounting Information Systems (3)

Prerequisite: Accounting 407, or equivalent. Case studies of computer-based accounting systems used by organizations such as universities, banks, industrial corporations and CPA firms. Emphasis on accounting information, reports and internal controls.

#### 508 Seminar in Tax Planning (3)

Prerequisites: Accounting 308 and classified SBAE status. Substantive provisions of federal law; tax planning from a corporate viewpoint; case studies of the effect of federal tax law on business decisions.

#### 510 Financial Accounting (3)

Prerequisite: classified SBAE status.

Accumulation, organization, and interpretation of financial and quantitative data relevant to the activities of corporate business enterprise.

#### 511 Seminar in Managerial Accounting (3)

Prerequisites: Accounting 201B or 510, and classified SBAE status. Accounting information for management decisions; elements of manufacturing, distribution and service costs; cost systems; standard costs; cost reports; cost analysis.

## 518 Seminar in International Accounting (3)

Prerequisites: Accounting 201B or 511 and classified SBAE status. Comparative analysis of accounting principles and practices outside the United States; international financial accounting standards; current problems of international financial reporting, accounting planning and control for international operations; multinational companies.

## 521 Seminar in Administrative Accounting (3)

Prerequisites: Accounting 302 or 511; classified SBAE status. Integrative aspects of accounting, financial, and quantitative data for managerial decision-making; long-term, short-term profit planning; budgetary control; cost analysis; financial analysis and planning; taxation; and transfer pricing.

## 572 Seminar in Taxation of Corporations and Shareholders (3)

Prerequisites: Accounting 308 and classified SBAE status. Federal taxation relating to corporations; organizing, distributions, liquidations and reorganizations.

#### 573 Seminar in Taxation of Property Transactions (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Federal taxation relating to sales, exchanges and other transfers.

#### 574 Seminar in Taxation of International Business Operations (3)

Prerequisites: Accounting 308 and classified SBAE status. Federal taxation relating to U.S. citizens and corporations with foreign source income and of foreign persons with U.S. source income; planning for foreign operations.

#### 575 Seminar in Estate, Gift, Inheritance Taxes and Estate Planning (3)

Prerequisites: Accounting 308 and classified SBAE status. Federal and California death taxes and the planning of personal estates.

## 576 Seminar in State and Local Taxation (3)

Prerequisites: Accounting 308 and classified SBAE status. Application of interstate income allocations; multi-state tax compact; separate apportionment accounting; foreign country sourced income. Also, California taxes as applied to businesses and individuals.

#### 577 Seminar in Taxation of Employee Compensation (3)

Prerequisites: Accounting 308 and classified SBAE status. Federal taxation relating to employee compensation including pensions and profit sharing, stock options, ESOPs, IRAs, Keoghs, maximum tax 5-year averaging, death benefits, group term life, etc.

#### 578 Seminar in Taxation of Partnerships (3)

Prerequisites: Accounting 308 and classified SBAE status. Federal taxation relating to partnerships, estates, trusts and other special entities.

#### 597 Project (3)

Prerequisite: classified SBAE status. Directed independent inquiry. Not open to students on academic probation.

#### 599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status, approval of department chair and Associate Dean. May be repeated for credit. Not open to students on academic probation.

## afro-ethnic studies

#### DEPARTMENT CHAIR:

Wacira Gethaiga

#### **DEPARTMENT OFFICE:**

Education Classroom 475

#### **PROGRAMS OFFERED**

Bachelor of Arts in Ethnic Studies

Option in Afro-Ethnic Studies

Minor in Afro-Ethnic Studies

#### **FACULTY**

Wacira Gethaiga, Carl Jackson, J. Owens Smith, Julie Stokes

#### **ADVISER**

All programs: Wacira Gethaiga

#### INTRODUCTION

Afro-Ethnic Studies is a multidisciplinary approach to understanding the black experience as it relates to life in America as part of a world community. In addition to degree programs in Afro-Ethnic Studies, the department provides course work in Ethnic Studies in general (e.g. Intercultural Socialization) and other specific ethnic groups (e.g. American Indian).

The required minimum for the Bachelor of Arts in Afro-Ethnic Studies consists of 30 units:



101 or 107, 190 or 280 and a minimum of 24 units in upperdivision courses. Students majoring in the Afro-Ethnic

majoring in the
Afro-Ethnic
Studies program
have a special
preparation in
and sensitivity
to life in
America as a
part of a world
community.
The program is
multi-discipli-

nary in nature in that all aspects of Afro-Ethnic Studies affect and are affected by other programs.

Graduates from the Afro-Ethnic Studies program have gone into careers in teaching, community development, community leadership, social work, urban research, law, civil service, industrial relations and a variety of comparable fields. Many have gone into graduate work in this field and some have entered more traditional disciplines where a general knowledge of social sciences and humanities is a prerequisite.

## BACHELOR OF ARTS IN ETHNIC STUDIES OPTION IN AFRO-ETHNIC STUDIES

Lower Division Courses (6 units required)

Afro 101 Introduction to Ethnic Studies (3)

OR Afro 107 Introduction to Afro-American Studies (3)

Afro 190 Survey of American History with Emphasis on Ethnic Minorities (3)

OR Afro 280 Afro-American History (3)

#### Upper Division Courses (24 units minimum)

Core Courses (15 units required)

(To be selected from the following courses)

Afro 309 The Black Family (3)

Afro 311 Intracultural Socialization Patterns (3)

Afro 317 Black Politics (3)

Afro 320 Black American Intellectual Thought (3)

Afro 335 History of Racism (3)

Afro 346 African Experience (3)

Afro 381 African Literature (3)

Afro 422 Psychology of the Afro-American (3)

Afro 424 Afro-American Literature (3)

Upper-Division Electives (9 units minimum)

Afro 301 Afro-American Culture (3)

Afro 310 Black Women in America (3)

Afro 312 American Indian Women (3)

Afro 314 Pan-African Dance & Movement (3)

Afro 321 Minority Community Development Planning (3)

Afro 325 African-American Religion (3)

Afro 385 Schools and Minority Groups (3)

Afro 430 A Social Psychological Study in Ethnic Minority Behavior (3)

Afro 437 American Indian Religions and Philosophy (3)

Afro 460 Afro-American Music Appreciation (3)

Afro 463 Seminar in Black Music (3)

Afro 499 Independent Study (1-3)

## Upper Division Writing Requirement (3 units)

English 301 Advanced College Writing (3)

#### **MINOR IN AFRO-ETHNIC STUDIES**

Students interested in the Afro-Ethnic Studies minor are required to take a minimum of 21 units. This includes six units of lower-division courses and fifteen units of upper-division courses.

#### Lower Division Courses (6 units)

Afro 101 Introduction to Ethnic Studies (3)

OR Afro 107 Introduction to AfroAmerican Studies (3)

Afro 190 Survey of American History with Emphasis on Ethnic Minorities (3)

#### Upper Division Courses (15 units)

Afro 301 Afro-American Culture (3)

Afro 309 The Black Family (3)

Afro 310 Black Women in America (3)

Afro 311 Intracultural Socialization Patterns (3)

Afro 312 American Indian Women (3)

Afro 314 Pan-African Dance & Movement (3)

Afro 317 Black Politics (3)

Afro 320 Black American Intellectual
Thought (3)

Afro 321 Minority Community Development Planning (3)

Afro 325 African-American Religion (3)

Afro 335 History of Racism (3)

Afro 346 The African Experience (3)

Afro 381 African Literature (3)

Afro 385 Schools and Minority Groups (3)

Afro 422 Psychology of the Afro-American (3)

Afro 424 Afro-American Literature (3)

Afro 430 A Social Psychological Study in Ethnic Minority Behavior (3)

Afro 463 Seminar in Black Music (3)

Afro 499 Independent Study (1-3)

#### **AFRO-ETHNIC STUDIES COURSES**

#### 101 Introduction to Ethnic Studies (3)

The perspective through which people of color have come to see themselves in terms of their own heroes, culture and contributions to societies in which they live and world society in general. (Same as Asian American Studies 101, Chicano Studies 101, Womenis Studies 101)

## 103 Oral and Effective Communications Skills Development (3)

A Basic English language elements course in composition writing structure, basic grammar, sentence faults, manuscript mechanics, and punctuation, paragraph, topic development, essay format, logic and diction. Lastly, library assignments, research paper construction, summaries, thesis statement development, indexing and glossary terms.

## 107 Introduction to Afro-American Studies (3)

The aims and objectives of Afro-American studies. The basic terms and references that give substance to Afro-American studies.

## 108 Linguistics and Minority Dialects (3) (Same as Linguistics 108)

#### 190 Survey of American History with Emphasis on Ethnic Minorities (3)

(Same as History 190 and Chicano Studies 190)

#### 301 Afro-American Culture (3)

African cultural characteristics in the New World and contemporary events, including art, ideas, dance and literature.

#### 309 The Black Family (3)

The American social conditions that shaped the black family from the African cultural patterns to the family that exists today. The roles of poverty, racism and discrimination.

#### 310 Black Women in America (3)

Issues in the study of black women in America, including social, political, economic and intellectual development. Historical and contemporary issues as they affect black American women will be investigated. (Same as Women's Studies 310)

#### 311 Intracultural Socialization Patterns (3)

Patterns of role learning as they vary within subpopulations; changes over time in the values, attitudes, and goals of both the general culture and of subcultures; stereotypes and realities; understanding and dealing with cultural variation as well as cultural "norms." (Same as Human Services 311)

#### 312 American Indian Women (3)

The female role in American Indian tribal lifestyles. Labor divisions, leadership, political and social activities from a number of tribes. Historical and contemporary issues, as they affect American Indian women.

#### 314 Pan-African Dance and Movement (3)

Theory and practice of movement of African and Haitian peoples. Movement (dance) as quasi-language in perpetuating the life style of African cultures and cultures of African descent.

#### 317 Black Politics (3)

Prerequisite: Political Science 100 or consent of instructor. Blacks' struggle for political equality and relief from political oppression. Public policies concerning blacks' freedoms, liberties and property rights. (Same as Political Science 317)

#### 320 Black American Intellectual Thought (3)

A study of the black American intellectual from slavery to contemporary times, with special emphasis on black contributions to American political and social thought as well as their contributions in America's social development.

## 321 Minority Community Development Planning (3)

Prerequisite: Afro-Ethnic Studies 317 or permission of instructor. This course is an interdisciplinary approach to the study of political and economic development in minority communities. Emphasis is placed on conceptualizing problems and planning and designing problem-solving models to resolve them.

#### 325 African-American Religion (3)

African-American belief systems and denominations. A study of folk beliefs among Blacks, African-American religious groups, and the role of the Black Church in politics and social change in the Black community. (Same as Religious Studies 325)

#### 335 History of Racism (3)

An investigation into the historical roots and current expressions of racism. Course focuses on how racism manifests itself through individual, social, political, economic and religious institutions and proposes methods of combating it.

#### 346 The African Experience (3)

Prerequisite: junior/senior standing. African history from the origin of the black man and traditional African civilization through the African diaspora to the institutional realities of Africa today. Not available for credit to students who have completed History 355.

#### 381 African Literature (3)

(Same as English 381 and Comparative Literature 381)

#### 385 Schools and Minority Groups (3)

Prerequisite: junior/senior standing.

Focuses on the ways in which the constraints of formal schooling affect the behaviors and attitudes of ethnic minority group members. Emphasizes the role of the community and family in school readiness and the psychological consequences of schooling.

#### 422 Psychology of the Afro-American (3)

Black identity and the life styles that have risen from racism. The socioeconomic, political, and cultural conditions which have fostered the blackness concept and the psychological devices used by blacks to survive.

#### 424 Afro-American Literature (3)

Prerequisite: junior/senior standing. The literary contributions by major black American authors. Contemporary black writers and the recurring themes of protest and quest for identity. (Same as English 424)

## 430 A Social Psychological Study in Ethnic Minority Behavior (3)

Prerequisites: junior/senior standing. The social psychological problems that ethnic minorities face such as stress-related problems in mental health. Society's reactions to these problems among these groups.

## 437 American Indian Religions and Philosophy (3)

Prerequisite: junior/senior standing or consent of instructor. Examination of American Indian religious and philosophic perspectives. Survey of religious interpretations and thought in various facets of belief ranging from traditional Indian religion to Christianity. Contemporary religious activities will be highlighted. (Same as Religious Studies 437)

#### 450 African History Since 1935 (3)

(Same as History 450)

#### 457 West African and the African Diaspora (3)

(Same as History 457)

#### 460 Afro-American Music Appreciation (3)

Prerequisite: junior/senior standing. Black music in America; the sociological conditions that help produce various forms of black music. (Same as Music 460)

#### 463 Seminar in Black Music (3)

Prerequisite: junior/senior standing or consent of instructor. In-depth appreciation of Black American musical performance practices and musical styles such as Spirituals, Ragtime, Blues, Jazz, Gospel, and Rhythm & Blues through lecture, discussion, and demonstration. (Same as Music 463)

#### 499 Independent Study (1-3)

Prerequisites: senior standing and acceptance of the subject by department chair and instructor directing the study.

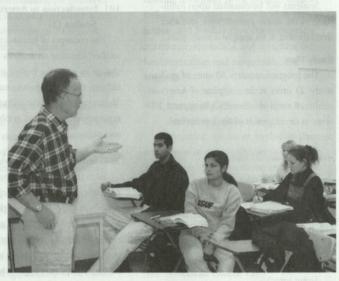
## american studies

#### INTRODUCTION

American studies gives students a thorough understanding of the past and present nature of American civilization. Three central features of our approach are: (1) an emphasis on the analysis of culture—that shared system of beliefs, behaviors, symbols, and material objects through which Americans give meaning to their lives; (2) examination of dominant culture patterns as well as the diversity of cultures in America; and (3) an interdisciplinary perspective that uses both the social

sciences and

Besides providing a rich liberal arts education. training in the major develops skills in writing and analysis and strengthens the ability to recognize connections among complex materials and diverse phe-



nomena. American studies graduates enter careers in business, communications, government service, law, social services, and teaching. The major is also a fine background for graduate work in the field or in related fields.

#### Teaching Credential

Because American studies is interdisciplinary, the major provides a particularly fine background for elementary school teaching and for secondary school teaching in the social sciences. Teaching credentials require specific study plans. Students should see a department adviser early in their course of study.

#### Awards in American Studies

The David Jon Vaca Memorial Scholarship of \$500 is awarded every semester to an undergraduate major in American studies based on need and academic achievement. The Susan Flinkingshelt Memorial Award is given annually in recognition of outstanding services to the American studies department and student association. The Earl James Weaver Graduate Student Essay Prize of \$250 is awarded annually for the best graduate paper in American studies.

#### **BACHELOR OF ARTS IN AMERICAN STUDIES**

The major consists of 36 units: 12 units in the core program and 24 units of electives following either Plan A or B.

#### Core Program (12 units required of all majors)

201 Introduction to American Studies (3)

301 The American Character (3)

350 Seminar in Theory and Method of American Studies (3)

401T Proseminar in American Studies (3)

#### **DEPARTMENT CHAIR:**

Jesse Battan

#### **DEPARTMENT OFFICE:**

Education Classroom 622

#### **PROGRAMS OFFERED**

Bachelor of Arts in American Studies Minor in American Studies Master of Arts in American Studies

#### FACULTY

Allan Axelrad, Jesse Battan, Wayne Hobson, John Ibson, Karen Lystra, Terri Snyder, Michael Steiner, Pamela Steinle, Leila Zenderland

#### **ADVISERS**

Undergraduate: All full-time faculty within the department

Graduate: John Ibson

#### Electives (24 upper-division units)

Elective course work is approved by the major adviser following either Plan A or B:

- A. Work in American studies and one or two other fields, such as Afro-ethnic studies, anthropology, Chicano studies, communications, criminal justice, English, history, geography, political science, psychology or sociology.
- B. Course work pursuing a particular theme or subject, such as: law and society, sex roles, the visual arts, ethnicity, urbanization, regionalism, the child and the family, or popular culture.

#### **MINOR IN AMERICAN STUDIES**

The minor in American studies requires 21 units: American Studies 201, 301 or 345, and 401T, plus 12 units of electives. Six units may be lower-division and three units may be taken in a related department upon approval of an American Studies Department adviser.

#### MASTER OF ARTS IN AMERICAN STUDIES

The graduate program is grounded in a thorough understanding of the concept of culture. It examines the creative tension between unity and diversity in the American experience, seeking ultimately to provide a full vision of our complex pluralistic culture. The program is interdisciplinary, requiring graduate students to integrate knowledge from the humanities and social sciences. It stresses the process of cultural change, requiring students to trace the past sources of contemporary issues. It develops advanced research, writing and analytical skills. Particular areas of faculty specialization within the department include: gender and sexuality; ethnicity; literature, film, art, and architecture as cultural expression; American regions; popular culture; and cultural radicalism.

#### Admission to Graduate Standing: Conditionally Classified

A student must meet the all-university requirements for admission. (Please consult the appropriate section of this catalog for complete information.) In addition, a student must (1) hold a bachelor's degree with a major, or its equivalent, in American studies or in an appropriate discipline of the humanities or social sciences; (2) have a gradepoint-average of at least 3.0 in upper-division major courses; and (3) submit two satisfactory letters of recommendation from instructors in upper-division major courses.

Students whose undergraduate program indicates certain limited subject, grade, or breadth deficiencies may be considered for admission, at the discretion of the graduate adviser, with approval of the department's graduate committee. In such cases, a student must make up deficiencies, in consultation with the graduate adviser, and must complete all required courses with at least a B average before classified graduate standing may be considered.

#### Graduate Standing: Classified

Students will be classified upon fulfillment of the above prerequisites, and after development of an approved study plan.

#### Study Plan

The program requires 30 units of graduate study: 21 units in the discipline of American studies, 6 units in other disciplines, and 3 units in development of an appropriate research skill.

American Studies (21 units)

A. Required courses

American Studies 501 Theory and Methods (3)

American Studies 502T Seminar: Selected Topics (3)

(May be repeated for credit with different topic)

B. Electives

Additional upper-division or graduate level course work in American studies (12)

Choose either C. or D. as follows:

- C. American Studies 598 Thesis (3) should be taken in the semester immediately preceding graduation from the program.
- D. An additional American studies graduate level elective, i.e., American Studies 599, American Studies 502T, or American Studies 503, plus successful completion of a three-part take home comprehensive examination based on the department's core reading list.

Other Disciplines (6 units)

Graduate-level seminars in anthropology, art, communications, comparative literature, English, geography, history, political science, or sociology.

Elective Skill (3 units)

A student must demonstrate proficiency in a methodological skill appropriate to his or her scholarly interests. In consultation with an adviser, the student will select the skill to be developed. Proficiency in a foreign language, quantitative methods, or linguistics would, for example, be appropriate. If prerequisite work is necessary before a student can develop proficiency through three units of course work, that preliminary work will not be counted toward the 30 units required for the M.A. degree.

For further information, consult graduate program adviser.

#### **AMERICAN STUDIES COURSES**

#### 101 Introduction to American Culture Studies (3)

The concepts of interdisciplinary culture studies, focusing on analysis of cultural change in complex, literate society, American culture, including cross-cultural comparisons. Topics include popular culture, subcultures, regionalism, myths and symbols, and culture and personality.

#### 201 Introduction to American Studies (3)

With the concept of culture as a unifying principle, focus is on four separate time periods in order to provide the framework for an understanding of American civilization. Several different kinds of documents will be used to illustrate the nature and advantages of an interdisciplinary approach.

## 300 Introduction to American Popular Culture (3)

An historical exploration of popular culture in America as it both reflects and contributes to the search for meaning in everyday life. Themes include heroes, myths of success, symbols of power, images of romance, consumerism, race and sexual identity.

#### 301 The American Character (3)

Cultural environment and personality. The extent to which there have been and continue to be distinctly American patterns of belief and behavior. Similarities, as well as class, ethnic, sex, and regional differences among Americans.

## 312 Multicultural Identities and Women's Experience (3)

Examination of the diversity of women's experiences, focusing on both historical and contemporary analysis of African American, Asian American, Latina, and white ethnic women. Course materials include autobiography, fiction, visual and popular arts, and feminist cultural criticism.

## 318 Hollywood and America: Using Film as a Cultural Document (3)

An examination of Hollywood as a cultural institution. Concentrating on the films of selected periods, the course analyzes Hollywood's ability to create and transmit symbols and myths, and legitimize new values and patterns of behavior.

#### 345 The American Dream (3)

An interdisciplinary analysis, in settings both historical and contemporary, of the myth and reality surrounding the notion of America as a land of unparalleled and unlimited possibilities, especially in the achievement of personal material success.

## 346 American Culture Through Spectator Sports (3)

Study of the shifting meaning of organized sports in changing American society. Includes analysis of sports rituals, symbols and heroes. Focus is on the cultural significance of amateur and professional football, baseball, and basketball.

#### 350 Seminar in Theory & Method of American Studies (3)

Prerequisites: American Studies 201 and 301; or consent of instructor. To provide an understanding and appreciation of methodology, theories of society, and images of humanity as they affect American studies contributions to scholarship. Fulfills the course requirement of the university upperdivision baccalaureate writing requirement for American studies majors.

#### 377 Prejudice and American Culture (3)

Prerequisite: upper-division standing. Concepts and methods of American culture studies as tools for better understanding the origins and appeal of intolerance, past and present. Particular focus on racism, ethnic and religious bias, sexism, and homophobia.

#### 386A American Social History 1750-1860 (3)

(Same as History 386A)

#### 386B American Social History 1865-1930 (3)

(Same as History 386B)

#### 401T Proseminar in American Studies (3)

Prerequisites: American Studies 201 and 301; or consent of instructor. The relationship between theory and application.

Analytic readings and research. Check the class schedule for topics being considered.

May be repeated for credit.

#### 402 Religion and American Culture (3)

Prerequisite: Upper division standing. An interdisciplinary analysis of the religious dimensions of American core culture from colonial settlement to the present. Topics include: Puritanism; rationalization, secularization, and feminization; the conversion experience, revivalism, and revitalization; fundamentalism and modernism; and civil religion.

#### 405 Images of Crime & Violence in American Culture (3)

Prerequisite: American Studies 201 or completion of general education section on American history, institutions and values. Cultural analysis of meanings ascribed to law and order, authority, violence, and punishment in the American past and present. Examined in selected symbols, images, traditions, and realities.

#### 407 American Humor (3)

Prerequisite: American Studies 201 or completion of general education section on American history, institutions, and values. Analyzes the cultural significance of various types of American humor in past and present settings. How humor reinforces existing culture and also serves as an index and agent of cultural change. Humor's relationship to ethnicity, region, social class, and sex.

#### 411 The White Ethnic in America (3)

Past and present cultures of America's white ethnic groups, principally non-Anglo-Saxon people such as the Jews, Irish, and Italians. Ethnic stereotypes, the survival, repression, and loss of ethnicity.

#### 413 The Shifting Role & Image of the American Male (3)

The effect of economic, social, political, and cultural changes on American males. Emphasis on the 19th and 20th centuries.

#### 416 Southern California Culture: A Study of American Regionalism (3)

Regionalism as a concept and as a fact of American life. Theories of regionalism measured against a study of Southern California and one other distinct American region.

#### 419 Love in America (3)

Prerequisites: upper-division standing or consent of instructor. Examines changes in the emotional lives of American men and women from the 17th century to the present. Concentrates on enduring and innovative views on the nature of love and the cultural forces that shape its legitimate and illegitimate expression.

## 420 Childhood and Family in American Culture (3)

Historical and contemporary culture study of childhood and family in America. The idea of childhood, changing concepts of childrearing, growing up in the American past, the impact of modernization, mother and home as dominant cultural symbols.

#### 423 The Search for Community (3)

Prerequisite: upper-division standing. Examining the historical transformation and modern reformulation of community in America, the course emphasizes the relationship of the individual to the larger social group. Topics include: freedom, need to belong, alienation, and search for identity.

#### 433 Visual Arts in Contemporary America (3)

Prerequisite: American Studies 201 or completion of general education section on American history, institutions and values. Visual phenomena in America as they reveal changes in recent American culture. Areas covered include: the "high" arts (painting, sculpture) as contrasted with the "low" arts (advertising, television); the artist as innovator, alienation, the business world, and American values in art.

## 438 American Minds: Images of Sickness and Health (3)

Prerequisite: upper-division standing.
Historically explores cultural changes in
American images of the healthy mind. Topics
include: medical and legal views of insanity,
Freud's impact on American thought, literary
treatments of madness, and psychological
themes in American popular culture.

#### 440 American Folk Culture (3)

Prerequisite: upper-division standing or consent of instructor. Considers American culture from the perspectives of particular folk groups and through the eyes of the "common" person, past and present. Topics include: interpretation of artifacts and oral traditions; relationships between regional, ethnic, and folk identity; modernization and folk consciousness.

#### 442 Television and American Culture (3)

Prerequisite: Completion of the general education section of American history, institutions, and values. American television as an interactive form of cultural expression, both product and producer of cultural knowledge. Examines the structure and content of television genres, and social-historical context of television's development and use, audience response, habits and environments of viewing.

#### 444 The Built Environment (3)

Prerequisite: upper-division standing or consent of instructor. Examines how Americans have shaped and structured space from the 17th century to the present. Emphasizes the relationship between space, place, architecture, and material culture; the interpretation of cultural landscapes and architectural styles; the changing meanings of the American home.

## 449 The American West in Symbol and Myth (3)

Prerequisite: American Studies 201 or completion of general education section on American history, institutions, and values. The meaning of the West to American culture through analysis of cultural documents such as explorer and captivity narratives, fiction, art, and film. Topics include: perception of wilderness, Indians, frontiersmen, and role of the West in creating a sexist national mythology.

#### 450 Women in American Society (3)

Socio-cultural history of women and women's movements in American society. Emphasis on 19th and 20th centuries. Examination of cultural models of American womanhood—maternal, domestic, sexual, social—their development and recent changes.

#### 460 Bohemians and Beats: Cultural Radicalism in America (3)

Prerequisite: American Studies 201 or completion of the general education section on American history, institutions, and values. Examines the ideas, activities, and legacies of the creators of a "counter-cultural" tradition in the 19th and 20th centuries. Explores their critique of modern civilization as well as their projects for self-transformation, social change, and cultural renewal.

## 465 The Culture of the American South (3)

Prerequisite: American Studies 201 or completion of the general education section on American history, institutions, and values. Examines distinctive cultural patterns in the American South, past and present. Topics include: Southern concepts of work and leisure, race and gender roles, political and religious controversies, literature and folklore, and the South as portrayed in the media.

#### 468 Culture in Turmoil: 1960s America (3)

Prerequisite: upper-division standing.
Origins, manifestations, and continuing significance of the turbulence in American culture associated with the 1960s.
Accelerated changes which occurred (or seemed to occur) in cultural meanings of authority, achievement, patriotism, sexuality, technology, and consciousness.

#### 499 Independent Study (1-3)

Supervised research projects in American studies to be taken with the consent of instructor and department chair. May be repeated for credit.

#### 501 Theory and Methods (3)

The American Studies movement. Its conceptual and methodological development.

The way this development was affected by and in turn reflected larger trends in the culture itself.

#### 502T Seminar: Selected Topics (3)

A particular problem or topic as a case study in the use of interdisciplinary methods in American studies. May be repeated for credit.

#### 503 Classics in American Studies (3)

Prerequisite: American Studies 501 or consent of instructor. Critical examination of texts that have been important or influential in the development of American Studies.

#### 596 American Studies Teaching Tutorial (3)

Prerequisite: American Studies 501.

Preparation for community college or university teaching. Small group discussion, lecture-discussion, examinations, teaching strategies. Enrollment requires approval of American Studies graduate coordinator.

Course may be repeated for credit, but may only count once on a graduate study plan.

#### 598 Thesis (3)

Prerequisites: graduate standing in American studies and consent of graduate coordinator. The writing of a thesis based on original research and its analysis and evaluation.

#### 599 Independent Graduate Research (1-3)

Prerequisites: graduate standing in American studies and consent of graduate coordinator. May be repeated for credit.

## anthropology

#### INTRODUCTION

Anthropology is the scientific study of humankind from its beginnings millions of years ago to the present day. Nothing human is alien to anthropology. Of the many sciences which study certain aspects of our species, only anthropology attempts to understand the whole panorama, in time and space, of the human condition. While other academic disciplines may concentrate on one aspect of human experience, anthropology is an integrated study of the whole range of

human activities, including communication and language, economics, political organization, religion, the arts, philosophy, education, medical and nutritional practices, social interaction, marriage, child rearing,

science, and



technology. Anthropology enables the study of people from all over the world as they live now, as they lived in the prehistoric and historic past, and as they may live in the future. Anthropology also studies people as biological-psychological-cultural-social wholes living in relationship with their environment; a major goal is to understand human beings from this overall perspective.

The major in Anthropology offers five concentrations and is designed to prepare students for advanced degrees in Anthropology as well as for positions in the private and public sector. Social service occupations, work in urban centers, museum work, health professions, natural resources management, and overseas work are some of the areas that offer many opportunities for anthropology graduates.

#### ADVISERS

Undergraduate: Lori Sheeran, Phyllisa Eisentraut, Jeffrey Himpele, and Ruth Van Dyke Graduate: Jeffrey Himpele

Internship Program Adviser: Lori Sheeran

#### **BACHELOR OF ARTS IN ANTHROPOLOGY**

The Bachelor of Arts in Anthropology requires 45 units in the major consisting of core courses, theory and methods, and elective coursework.

#### Core Courses (18 units)

Anthro 101 Introduction to Biological Anthropology (3)

Anthro 102 Introduction to Cultural Anthropology (3)

Anthro 103 Introduction to Archaeology (3)

Anthro 300 Language and Culture (3)

#### **DEPARTMENT CHAIR:**

Susan Parman

#### **DEPARTMENT OFFICE:**

McCarthy Hall 426

#### **ANTHROPOLOGY MUSEUM:**

McCarthy Hall 424

## CENTER FOR CALIFORNIA PUBLIC ARCHAEOLOGY:

Humanities 311, 313

#### **ARCHAEOLOGICAL LABORATORY:**

McCarthy Hall 420

## BIOLOGICAL ANTHROPOLOGY LABORATORY:

McCarthy Hall 428

## CENTER FOR ETHNOGRAPHIC CULTURAL ANALYSIS:

McCarthy Hall 422

#### VISUAL ANTHROPOLOGY LABORATORY:

McCarthy Hall 477

#### PROGRAMS OFFERED

Bachelor of Arts in Anthropology Minor in Anthropology Master of Arts in Anthropology

#### FACULTY

Phyllisa Eisentraut, Jeffrey Himpele, Roger Joseph, LeRoy Joesink-Mandeville, Joseph Nevadomsky, Jacob Pandian, Susan Parman, Marlene Rios, Lori Sheeran, Judy Suchey, Ruth Van Dyke Anthro 480 History of Anthropology (3)

Anthro 481 Contemporary Anthropology (3)

#### Theory (9 units)

Students must take three of the following courses:

Anthro 301 Primate Behavior (3)

Anthro 305 Anthropology of Religion (3)

Anthro 306 Comparative Aesthetics and Symbolism (3)

Anthro 307 Culture and Image: The Anthropology of Visual Symbols (3)

Anthro 308 Culture and Aging: Anthropological Gerontology (3)

Anthro 409 Applied Anthropology (3)

Anthro 410 Urban Anthropology (3)

Anthro 411 Culture and Communication (3)

Anthro 412 Culture Change (3)

Anthro 413 Culture and Personality: Psychological Anthropology (3)

Anthro 414 Economic Anthropology (3)

Anthro 415 Culture and Nutrition (3)

Anthro 417 Life Quests (3)

Anthro 420 Visual Anthropology (3)

Anthro 432 Woman in Cross-Cultural Perspective (3)

Anthro 440 Human Evolution (3)

Anthro 442 Medical Anthropology (3)

Anthro 450 Culture and Education (3)

Anthro 460 Public Archaeology in California (3)

Anthro 470 Survey of Anthropological Films (3)

#### Methods (9 units)

Students must take three of the following courses:

Anthro 400 Cultural Analysis: Qualitative Methods in Anthropology (3)

Anthro 401 Ethnographic Field Methods (3)

Anthro 402 Museum Science (3)

Anthro 403 Archaeological Fieldwork (3)

Anthro 404 Analytical Methods in Archaeology (3)

Anthro 405 Human Osteology (3)

Anthro 406 Descriptive Linguistics (3)

Anthro 407 Anthropological Video Production (3)

Anthro 408 Enthnogerontology (3)

Anthro 416 Anthropological Linguistics (3)

Anthro 441 Human Variation (3)

Anthro 476 Archaeological Investigations (3)

Anthro 497 Ethnographic Investigations (3)

Anthro 498 Museum Practicum (3)

#### Electives (9 units)

Anthro 100 Non-Western Cultures and The Western Tradition (3)

Anthro 104 Traditional Cultures of the World (3)

Anthro 105 Language, Culture, and Thought (3)

Anthro 320 Cultures of Europe (3)

Anthro 321 The American Indian (3)

Anthro 324A The Ancient Maya (3)

Anthro 324B The Aztecs and Their Predecessors (3)

Anthro 325 Peoples of South America (3)

Anthro 327 Origins of Civilization (3)

Anthro 328 Peoples of Africa (3)

Anthro 329 Peoples of Caribbean (3)

Anthro 340 Peoples of Asia (3)

Anthro 345 Peoples of the Middle East and North Africa (3)

Anthro 347 Peoples of the Pacific (3)

Anthro 360 Contemporary American
Culture (3)

Anthro 370 Anthropology of Non-Western Films (3)

Anthro 490T Undergraduate Seminar in Anthropology (3)

Anthro 491 Internship in Anthropology (3)
Anthro 499 Independent Study (1-3)

Note: Students may take three to nine elective units of coursework from theory and methods categories if those units are not used to meet the requirements of coursework in theory or methods. Three units of Anthro 499 and 490T may be taken to meet theory or methods requirements with the consent of the faculty supervisor and the department chair; also, three units of Anthro 491 can be included in the methods category with the approval of the faculty supervisor and department chair. Students may take three to nine units of coursework in related fields. Courses in related fields must be selected in consultation with the adviser; no related field course will be counted toward the major unless it has the approval of the adviser.

## OPTIONAL CONCENTRATIONS FOR B.A. IN ANTHROPOLOGY

Students who opt for a concentration must take 45 units of specific anthropology courses listed under the concentration. Those who opt for concentrations must meet with one of the undergraduate Program advisers and secure approval before enrolling in the courses for any concentration.

## Educational Anthropology Concentration (45 units)

Anthropology Core Courses (18 units)

Theory: Anthro 409, 410, and 450 (9 units)

Methods: Anthro 401 and 497 (9 units)

Electives: One area course and Anthro 411, 412, 413, 490, 491 or 499 (9 units)

## Medical Anthropology Concentration (45 units)

Anthropology Core Courses (18 units)

Theory: Anthro 409, 413, and 442 (9 units)

Methods: Anthro 401 and 497 (9 units)

Electives: One area course and Anthro 415, 440, 491 or 499 (9 units)

## Museum Anthropology Concentration (45 units)

Anthropology Core Courses (18 units)

Theory: Anthro 306, 409 and 411 (9 units)

Methods: Anthro 402, 404 and 498 (9 units)

Electives: One area course and Anthro 403, 412, 440, 490, 491 or 499 (9 units)

#### Primatology Concentration (45 units)

Anthropology Core Courses (18 units)

Theory: Anthro 301, 409 and 440 (9 units)

Methods: Anthro 405, 441 and 491 (9 units)

Electives: 9 units approved by the Faculty Advisor

## Public Archaeology Concentration (45 units)

Anthropology Core Courses (18 units)

Theory: Anthro 409, 412, and 460 (9 units)

Methods: Anthro 403, 404, and 476 (9 units)

Electives: One area course and Anthro 490, 491 or 499 (9 units)

## Urban Anthropology Concentration (45 units)

Anthropology Core Courses (18 units)

Theory: Anthro 409, 410 and 412 (9 units)

Methods: Anthro 401 and 497 (9 units)

Electives: One area course and Anthro 490,
491 or 499 (9 units)

#### MINOR IN ANTHROPOLOGY

Twenty-one units must be taken to fulfill requirements for a minor.

#### Core Courses (12 units)

Anthro 102 Introduction to Cultural Anthropology (3)

Anthro 300 Language and Culture (3)
OR Anthro 416 Anthropological

Linguistics (3)

Anthro 480 History of Anthropology (3)

Anthro 481 Contemporary Anthropology (3)

#### Electives (9)

Anthro 100 Non-Western Cultures and the Western Tradition (3)

OR Anthro 101 Introduction to Biological Anthropology (3)

OR Anthro 103 Introduction to Archaeology (3)

Six additional units of upper-division anthropology.

#### **MASTER OF ARTS IN ANTHROPOLOGY**

The program offers advanced study of general anthropology, while simultaneously encouraging specialization in one (or more) of the traditional subdisciplines: archaeology, cultural anthropology, linguistics, and physical anthropology. Opportunities for field and laboratory research and for other related learning experiences permit students to enlarge upon formal classroom training and to work independently with original data. Students may pursue a thesis or project of either a traditional or more exploratory character.

Efforts are made to assist individuals to plan programs that will meet their individual needs and interests.

#### Prerequisites

An applicant must meet the university requirements for conditionally classified graduate standing: a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures). Admission is contingent upon evaluation and acceptance by the Graduate Study Committee. In addition to the University Application, the applicant

must submit a letter of intent and at least two letters of recommendation. Students with limited subject or grade deficiencies may be considered for admission to the program if they agree to complete additional courses selected by the Graduate Study Committee, with at least a 3.0 (B) average. Subject deficiencies must be met prior to candidacy. Students entering from other colleges and universities and/or from fields other than anthropology may discuss appropriate course substitutions with the Graduate Adviser.

#### Classification

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements, may be granted classified graduate standing upon the development of an approved study plan:

 A bachelor's degree with a minimum of 27 units in anthropology, including the following courses or their equivalents.

Lower-Division (9 units)

Anthro 101, 102 and 103

Upper-Division (18 units)

Anthro 300 or 416, 480 and 481

Additional upper-division coursework in Anthropology (9 units)

Reading courses and special examinations may be substituted for some of these prerequisites by the department.

- 2. A GPA of 3.0 (B) for all work taken in anthropology.
- 3. Classification review administered by the graduate adviser.

#### Study Plan

The 30-unit study plan for the degree must include the following:

Anthro 501 Seminar: Methodology of Anthropological Research (3)

Anthro 502 Contemporary Theory in Anthropology (3)

Anthro 597 Project (6) or Anthro 598 Thesis (6)

Two additional graduate seminars (Anthro 504) in anthropology (6 units)

400-level or graduate work in anthropology (6 units)

400-level or graduate work in anthropology or related fields (6 units)

Up to six units of Anthropology 599
Independent Graduate Research, may be used

for the last two requirements above. For continuation in the program an average of 3.0 (B) for all work in the study plan must be maintained.

Students must remain continuously enrolled, either by enrolling in at least one anthropology course each semester or by enrolling in Graduate Studies 700. Students may request a waiver of this requirement for one or two semesters if professional purposes require absence from campus. A student who is not continuously enrolled will be required to apply for readmission to the program.

A thesis or a project, including an oral examination, must be completed for the degree. Normally a student will register for thesis or project two times, for three units each semester. Anthropology 501 and 502 must be taken within the first 11/2 years of graduate work.

The progress of graduate students will be reviewed prior to classification and again before advancement to candidacy.

Students must demonstrate to their thesis committee that they have competence in a foreign language or quantitative methods by (1) translating a short text which is approved by the student's committee and focuses on the student's research field or (2) passing an anthropology course in quantitative methods or another course in quantitative methods approved by the student's committee.

For further information, consult the graduate program adviser. See also the Department of Anthropology's student handbook.

#### **ANTHROPOLOGY COURSES**

## 100 Non-Western Cultures and the Western Tradition (3)

An examination of the changing views of man, nature and culture in Western civilization as related to the impact of non-Western influences, including the use and interpretation of data on non-Western peoples and cultures.

#### 101 Introduction to Biological Anthropology (3)

Humans as biological organisms and in evolutionary perspective. Concepts, methods, findings and issues in the study of the Order primates, including the relationships between fossil monkeys, apes and humans, and the significance of genetic diversity between modern populations. (CAN ANTH 2)

## 102 Introduction to Cultural Anthropology (3)

The nature of culture and its significance. Uniformities and variations in human cultures. Cultural analyses of major institutional forms such as the family, economy, government, religion and art with an emphasis on preliterate peoples. Central problems of cultural comparison and interpretation. (CAN ANTH 4)

#### 103 Introduction to Archaeology (3)

Relationship of archaeology, culture history and culture process, field methods and analysis of archaeological data; the uses and abuses of archaeology. World culture history from Pleistocene beginnings to the threshold of civilization. (CAN ANTH 6)

#### 104 Traditional Cultures of the World (3)

A comparative, worldwide survey of traditional, selected and well-studied ways of life using ethnographic writings, novels and films. Examines representative bands, tribes, chiefdoms, primitive states and folk societies.

#### 105 Language, Culture, and Thought (3)

Analysis of the fundamental role that language and culture play in thinking, and an examination of the cultural logic in relation to the interplay of linguistic and cultural boundaries; exploration on thinking in relation to subcultural variations, multiculturalism, and multilingualism. (Same as Linguistics 105)

#### 300 Language and Culture (3)

Prerequisite: Anthro 102 or consent of instructor. Language as a factor in culture.

Trends in the study of language and culture.

#### 301 Primate Behavior (3)

Prerequisite: Anthro 101 or 102 or Psychology 101 or completion of General Education category III.A.2. The anthropological study of the behavior of primates including monkeys and apes with data collection in the wild and the laboratory; review and discussion of behavioral characteristics that are part of the primate heritage of humankind.

#### 305 Anthropology of Religion (3)

Prerequisite: Anthro 102 or consent of instructor. Beliefs and practices in the full human variation of religious phenomena, with an emphasis on primitive religions. The forms, functions, structures, symbolism, and history and evolution of religious systems.

## 306 Comparative Aesthetics and Symbolism (3)

The metaphysical and mystical systems underlying the "grammars" of the art, myths, and rituals of various nonliterate and literate peoples and their development into creative experiences.

## 307 Culture and Image: The Anthropology of Visual Symbols (3)

Prerequisite: Anthropology 100 or 101 or 102 or 103 or 104. Humanistic interpretation of visual representations from an anthropological cross-cultural perspective. Participatory experience in exploring the relationship between culture and visual images, and interpreting cultural processes involving images.

## 308 Culture and Aging: Anthropological Gerontology (3)

Prerequisite: Anthropology 100 or 101 or 102 or 103 or 104. Anthropological discourse on diverse cultural conceptions of aging as they relate to gender, class, ethnic and religious categories. Cross-cultural comparison of culturally patterned time-table of life-cycle and age-grades for understanding the universals and variability in human aging.

#### 320 Cultures of Europe (3)

Prerequisite: Anthro 102 or equivalent. A cultural survey of Europe, focusing on the peasant, national, and pan-European traditions of Europe. Diverse anthropological approaches are used to examine changing boundaries of European identity from prehistory to the present "European Union."

#### 321 The American Indian (3)

Prerequisite: Anthro 102 or consent of instructor. North American Indians north of Mexico; origin, languages, culture areas, cultural history; the impact of European contacts.

#### 324A The Ancient Maya (3)

The archaeology and ethnohistory of the Maya area of Southern Mesoamerica. The problems of initial settlement of the area and the "rise" and dynamics of ancient Maya civilization.

## 324B The Aztecs and Their Predecessors (3)

Archaeological survey of principal Mesoamerica pre-Columbian cultures north and west of the Maya area. The Aztecs and their predecessors, religion, art, architecture, intellectual achievements and the Olmec heritage.

#### 325 Peoples of South America (3)

Prerequisite: Anthro 102 or consent of instructor. Central and South America.

Representative cultural areas before and after contacts with Western countries.

#### 327 Origins of Civilizations (3)

The development of civilization in both the Old and New Worlds in primary centers such as Mesopotamia, Egypt, the Indus Valley, China, Mesoamerica and Peru, and secondary centers such as the Aegean and Europe.

#### 328 Peoples of Africa (3)

Prerequisite: Anthro 102 or consent of instructor. A cultural survey of Africa.

Description of selected cultures and aspects of culture before and after contact with non-Africans.

#### 329 Peoples of the Caribbean (3)

Prerequisite: Anthro 102 or equivalent. A survey of the various ethnic groups of the Caribbean, focusing on the description and interpretation of African, European, Asian and Amerindian cultural elements.

#### 340 Peoples of Asia (3)

Prerequisite: Anthro 102 or consent of instructor. A survey of Asian civilizations and cultural traditions, emphasizing the study of the personality configurations in different culture areas, the analysis of the structure of Asian civilizations, and an examination of the peasant, tribal and ethnic groups of Asia.

#### 345 Peoples of the Middle East and North Africa (3)

Prerequisite: Anthro 102 or consent of instructor. Interrelationship between culture, economy, political structure and belief system of selected cultures in the Middle East and North Africa.

#### 347 Peoples of the Pacific (3)

Prerequisite: Anthro 102 or consent of instructor. The indigenous peoples and cultures of the Pacific Islands, including Tahiti, Hawaii and Australia. The forces and processes contributing to social change in island communities and current problems being faced by them.

#### 360 Contemporary American Culture (3)

Prerequisite: Anthro 102 or consent of instructor. Application of anthropological methods, categories of analysis, and types of interpretation to American culture. Survey and critique of selected community studies and other kinds of relevant research.

## 370 Anthropology of Non-Western Films (3)

Prerequisites: Anthro 100 or 102 or 104 or consent of instructor. Comparative analytical study of commercial and non-commercial films and videos made by non-western people. Films and videos considered as cultural artifacts that are particularly revealing of the ways people conceive of themselves and their cultures.

#### 400 Cultural Analysis: Qualitative Methods in Anthropology (3)

Prerequisite: Anthro 102. An examination of the qualitative methods that are used in the analysis of culture; review of recent methodologies developed in the framework of semiotic, phenomenological, and interpretive anthropology.

#### 401 Ethnographic Field Methods (3)

Prerequisites: Anthro 102 and six additional units of anthropology or consent of instructor. Anthropological field research by students on various problems using participant observation techniques.

#### 402 Museum Science (3)

Methods, principles and techniques used in natural history, and small scientific and historical museums. Subjects covered include scope of exhibit and research collections, care and repair of specimens, acquisitions, storage and preparation of presentations in anthropological, historical, biological and paleontological museums.

#### 403 Archaeological Fieldwork (3)

Prerequisites: Anthro 102 or 103 and consent of instructor. Excavation of a local archaeological site. Archaeological mapping, photography and recording. Laboratory methods of cataloging, preservation, description and interpretation of archaeological materials. Saturday field sessions. May be repeated once for credit as an elective. (1 hour lecture, 6 hours laboratory)

#### 404 Analytical Methods in Archaeology (3)

Prerequisites: Anthro 103 and 403. The employment of physical data collecting techniques (e.g., photographic, paleo-magnetic) in the field and the analysis of artifact collections and data from previous field operations in the laboratory. May be repeated once for credit as an elective. (1 hour lecture, 6 hours laboratory)

#### 405 Human Osteology (3)

Prerequisite: consent of instructor.

Techniques in the basic identification of human skeletal remains. Aging, sexing, racing and stature reconstruction. For those interested in archaeology, hominid evolution and/or forensic science. (2 hours lecture, 3 hours laboratory)

#### 406 Descriptive Linguistics (3)

(Same as Linguistics 406)

#### 407 Anthropological Video Production (3)

Prerequisites: Six upper-division units of anthropology or consent of instructor.

Planning, shooting, and editing videotapes relating to all sub-disciplines of anthropology.

(1 hour lecture; 6 hours laboratory activities, demonstrations, and fieldwork)

#### 408 Ethnogerontology (3)

Prerequisite: Anthropology 102. Learning the methods of ethnoscience and interpretive semiotics for analyzing cultural knowledge and domains pertaining to aging. Training in ethnographic cultural analysis of aging for the production of ethnographies that focus on the symbols, taxonomies, paradigms, and themes of aging.

#### 409 Applied Anthropology (3)

Prerequisites: Anthro 102 or consent of instructor. The uses of anthropological skills and sensitivities in approaching contemporary human problems. Cultural change, organizational development, program planning and evaluation, the consultant's role, and professional ethics.

#### 410 Urban Anthropology (3)

Prerequisite: Anthro 102. A cross-cultural investigation of similarities and differences in urbanism with an emphasis on current theoretical and methodological perspectives in the study of urban social and cultural forms and processes.

#### 411 Culture and Communication (3)

Prerequisite: Anthro 300 or consent of instructor. How culture meaning and manipulation are constituted in both traditional and modern cultures through language, mythology, ritual, architecture, religion, and other communication systems.

#### 412 Culture Change (3)

Prerequisite: Anthro 102 or consent of instructor. Interrelations between cultural, social and psychological processes in the dynamics of culture growth and change. Impact of western technology on tribal and peasant societies. Anthropological contributions to the planning of directed sociocultural change in selected areas.

## 413 Culture & Personality: Psychological Anthropology (3)

Prerequisites: Anthro 102 or consent of instructor. The relationship between the individual and the culture. Child training in non-western cultures. Survey of concepts, studies, and research techniques.

#### 414 Economic Anthropology (3)

Prerequisite: Anthro 102 or consent of instructor. The ethnology and ethnography of economic life, principally in non-western societies; the operation of systems of production and distribution within diverse cultural contexts.

#### 415 Culture and Nutrition (3)

Prerequisites: Anthro 101 or 102 or consent of instructor. Interrelationships between human nutrition, basic food resources, individual development and sociocultural organization; includes assessment of student's nutritional status, beliefs, and practices relative to other cultures.

#### 416 Anthropological Linguistics (3)

Nature and functions of language; language structure and change; classification of languages; use of linguistic evidence in anthropology. (Same as Linguistics 416)

#### 417 Life Quests (3)

Contemporary ways to wisdom and humanness in cross-cultural and historical perspectives. New and comparative approaches to understanding the life cycle, development and fulfillment of individual personalities.

#### 420 Visual Anthropology (3)

Prerequisite: Anthropology 100, 101, 102, 103, 104, or equivalent. An examination of the development of the field of visual anthropology and an analysis of the changing and diverse approaches to the use of visual media in representing and interpreting other cultures.

## 432 Woman in Cross-Cultural Perspective (3)

Prerequisite: Anthro 102 or consent of instructor. The influence of biological determinants as they are shaped by cultural beliefs, values, expectations and socially defined roles for women. The changing role of women in industrial society.

#### 440 Human Evolution (3)

Prerequisite: Anthro 101 or completion of general education category III.A.2. Advanced primate evolution; the origin of Homo sapiens as evidenced in the fossil record and through biochemical and molecular studies. Evolutionary theory and problems in human evolution. (2 hours lecture, 3 hours laboratory)

#### 441 Human Variation (3)

Prerequisite: Anthro 101. The processes underlying and the theories for the existence of the present variation between and within human populations. The genetics of human populations and the significance of racial classifications. (2 hours lecture, 3 hours laboratory)

#### 442 Medical Anthropology (3)

Prerequisite: Anthro 101 or 102 or Psychology 101. Human health and disease and their relationship to cultural practices, beliefs and environmental factors; histories of various diseases as factors of cultural change; health care delivery systems.

#### 450 Culture and Education (3)

Prerequisite: Anthro 102 or consent of instructor. The transmission of values, implicit cultural assumptions, and the patterning of education in cross-cultural perspective.

American culture and development problems.

#### 460 Public Archaeology in California (3)

An archaeological survey of California, emphasizing the examination of recent scientific excavations. Analysis of new archaeological methods, current research specializations, responsibilities of the modern archaeologist, and review of legislation affecting archaeology.

#### 470 Survey of Anthropological Films (3)

Prerequisites: Anthro 100 or 101 or 102 or 103 or 104 or consent of instructor.

Survey and analysis of the uses of film and video in anthropological research, teaching, theory, methodology. Films are studied not only for their anthropological content, but also as artifacts of western culture which reveal significant aspects of that culture.

#### 476 Archaeological Investigations (3)

Prerequisites: Anthro 102 or 103 or consent of instructor. Methodology and practice of archaeological fieldwork. May be repeated for credit. (1 hour lecture, 6 hours laboratory)

#### 480 History of Anthropology (3)

Prerequisite: Anthro 102 or consent of instructor. The principal contributions of anthropologists 1850-1950; evolutionary, diffusionist, historical, particularist, configurationalist, and culture and personality approaches in anthropology.

#### 481 Contemporary Anthropology (3)

Prerequisite: Anthro 102 or consent of instructor. Anthropologists from 1950 to the present; neoevolutionist, sociological, structuralist, psychological and symbolic approaches.

#### 490T Undergraduate Seminar in Anthropology (3)

Prerequisite: consent of instructor. Topics in anthropology. May be repeated for credit.

#### 491 Internship in Anthropology (3)

Prerequisites: 18 upper-division units in anthropology and/or related fields. Career opportunities. On-the-job training under faculty supervision in museum, industry or governmental service. May be repeated for credit for a total of six units.

#### 497 Ethnographic Investigations (3)

Prerequisites: Anthro 102 and
Anthropology 401 or equivalent. Training in
the methodologies of participant observation
and interview techniques; investigation and
description of cultural domains such as religion, health, economics, politics, and family
and ethnic boundaries. May be repeated for
credit for a maximum of six units.

#### 498 Museum Practicum (3)

Prerequisites: At least 15 units of anthropology and consent of instructor. Practical experience in museum operations, using the facilities of the Anthropology Museum.

Topics covered include exhibit preparation, membership and funding operations, catalogue preparation and outreach activities.

May be repeated for credit for a maximum of six units.

#### 499 Independent Study (1-3)

Prerequisites: at least 15 units of anthropology and consent of adviser. Individual research project involving either library or fieldwork. Conferences with the adviser as necessary. Results in one or more papers.

May be repeated for credit.

#### 501 Seminar: Methodology of Anthropological Research (3)

Prerequisites: completion of undergraduate major in anthropology and/or graduate standing or consent of instructor. The contemporary methodological spectrum in anthropology and new trends in research planning and implementation.

## 502 Contemporary Theory in Anthropology (3)

Prerequisite: Completion of undergraduate major in anthropology and/or graduate standing or consent of instructor. The basic assumptions and theoretical positions of leading contemporary anthropologists.

#### 504T Seminar: Selected Topics in Anthropology (3)

Prerequisites: completion of undergraduate major in anthropology and/or graduate standing or consent of instructor. The topic chosen and a general outline of the seminar is circulated prior to registration. May be repeated.

#### 505 Phonological Analysis (3)

(Same as Linguistics 505)

#### 507 Grammatical Analysis (3)

(Same as Linguistics 507)

#### 508 Theories of Syntax (3)

(Same as Linguistics 508)

#### 597 Project (3,6)

Prerequisites: graduate standing and consent of instructor. The completion of a project derived from original field or laboratory research, and/or from library study. May be repeated for credit to a maximum of 6 units.

#### 598 Thesis (3,6)

Prerequisites: graduate standing and consent of instructor. The writing of a thesis based on original field or laboratory research, and/or on library study, and its analysis and evaluation. May be repeated for credit to a maximum of 6 units.

#### 599 Independent Graduate Research (1-3)

Prerequisite: consent of adviser.

Individual research involving fieldwork, laboratory, or library study, and conferences with a project adviser as necessary, and resulting in one or more papers. May be repeated for credit.

#### **DEPARTMENT CHAIR**

Larry Johnson

#### **DEPARTMENT OFFICE**

Visual Arts 102

#### **PROGRAMS OFFERED**

Bachelor of Arts in Art Art History General Studio Art Teaching

Bachelor of Fine Arts in Art

Ceramics

Crafts

Creative Photography

Drawing and Painting

Entertainment Art/Animation

Graphic Design

Illustration

Printmaking

C 1 . . . . .

Sculpture

Minor in Art

Master of Arts in Art

Drawing and Painting (including

Printmaking)

Sculpture

Crafts (including Ceramics, Glass,

Wood, Jewelry/Metalsmithing)

Design (including Graphic Design, Illustration, Exhibition Design,

Creative Photography)

Art History

Master of Fine Arts in Art

Drawing, Painting, and Printmaking

Sculpture

Ceramics (including Glass)

Crafts (including Jewelry/

Metalsmithing, and

Woodworking)

Design (including Graphic Design, Illustration, and Exhibition Design)

Creative Photography

Certificate in Museum Studies

#### **FACULTY**

Ana-Victoria Aenelle, Bryan Cantley, Ruth Capelle, John Carter, Kyung Sun Cho, Dorte Christjansen, Eileen Cowin, Frank E. Cummings III, Darryl Curran, John T. Drew, Robert N. Ewing, Maurice Gray, Arnold Holland, Thomas Holste, George James, Jim Jenkins, Jade Jewett, Larry Johnson, G. Ray Kerciu, Donald Lagerberg, Dana Lamb, Sergio Lizarraga, Stephen M. Lorson, Clinton MacKenzie, Mike McGee, Zena Pearlstone, Jerry Rothman, Jerry Samuelson, Vincent Suez



#### **ADVISERS**

Undergraduate: Contact department office.

Graduate: Sergio Lizarraga

#### INTRODUCTION

The Department of Art is accredited by the National Association of Schools of Art and Design.

The Department of Art offers programs which include the scholarly fields of art history, theory, analysis and criticism; the studio fields of drawing and painting, entertainment/animation, printmaking, sculpture, crafts (including jewelry, wood and metal), ceramics (including glass), graphic design, creative photography, illustration, and exhibition design; and the single subject teaching field of art education.

Curricular plans for the Bachelor of Arts and the Bachelor of Fine Arts have been developed to meet the individual needs and interests of students in art.

The general objectives of the programs are to provide a comprehensive learning environment which contributes conceptually and technically to the development of the art historian, the visual artist and the art teacher. Specifically, the programs provide opportunities for students to: (1) develop a knowledge and understanding of fundamental visual experience and concepts basic to many forms and fields of art; (2) develop a critical appreciation of historical and contemporary art forms as they relate to individual and social needs and values; (3) creatively express one's personal experience and thought with visual skill and clarity; (4) develop knowledge and skills necessary to pursue graduate studies in visual arts, or to teach art and (5) develop the understanding and expertise applicable to professional practice.

#### **BACHELOR OF ARTS IN ART**

The 124-unit Bachelor of Arts degree offers concentrations in Art History, General Studio Art and Teaching. The program objectives are to provide correlative experiences, information and theory.

The Art History concentration emphasizes the area of art history, theory, and appreciation and is particularly recommended for those students who wish to pursue graduate studies in art history or museum studies.

The General Studio Art concentration is a varied curriculum that provides a broad education in the visual arts.

The Teaching concentration prepares students to meet the requirements for admission to the Credential Program teaching art, grades K-12.

In addition to the requirements listed below for the major, students must meet the other university requirements for a bachelor of arts degree. Students in the Teaching concentration must also meet specific requirements for the desired teaching credential.

All art majors must take Art 300, Writing in the Visual Arts, and pass the university's Examination in Writing Proficiency (EWP) after achieving junior standing (60 units). Testing dates for the EWP are available from the Testing Center or the Academic Advisement Center.

To earn a Bachelor of Arts in Art students must achieve grades of C or better in all art courses required for the degree.

#### ART HISTORY CONCENTRATION

Preparation for the major (lower division-21 units)

Art 201A,B Art and Civilization (3,3)

Lower-division studio courses (3,3)

Approved electives in art, American studies, anthropology, history, literature, music, philosophy or theatre (3,3,3)

The major (upper division 33 units)

300 Writing in the Visual Arts (3)

480 Selected Topics in Art History (3)

481 Seminar in Art History (3)

Approved upper-division elective (3)

Upper-division art history (21)

#### **GENERAL STUDIO ART CONCENTRATION**

Lower-Division (27 units)

103 Two-Dimensional Design (3)

104 Three-Dimensional Design (3)

107A,B Beginning Drawing and Painting (3,3)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

Art Electives (3,3)

Select at least two courses from two of the following areas: design; print making; creative photography; sculpture; ceramics; crafts; drawing and painting.

Upper-Division (27 units)

300 Writing in the Visual Arts (3)

Art History (3,3)

Studio Area (12 units)

Select one course from each of the following: (1) drawing and painting; (2) sculpture, creative photography, printmaking; (3) crafts and ceramics; (4) design.

Electives (3,3)

Choose two courses from at least two different categories of the following: drawing and painting; printmaking; creative photography; sculpture; crafts (glass); ceramics; graphic design; illustration; exhibition design; art education.

#### **TEACHING CONCENTRATION**

Single Subject Instruction

(Qualifies for Teaching Art in Grades K-12) Preparation for the major (lower division-30 units)

103 Two-Dimensional Design (3)

104 Three-Dimensional Design (3)

106A Beginning Ceramics (3)

107A,B Beginning Drawing and Painting (3,3)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

205A Beginning Crafts (3)

207A Drawing/Painting (3)

Major requirements (upper division-24 units)

Select Drawing/Painting, Crafts or Creative Photography and Computer Design Emphasis.

#### Drawing and Painting Emphasis

300 Writing in the Visual Arts (3)

307A,B Drawing and Painting (3,3)

310A Watercolor (3)

317A Life Studies, Drawing and Painting (3)

347A Printmaking Etching (3)

312 Modern Art (3)

441A Media Exploration for Teaching Art (3)

#### Crafts Emphasis

300 Writing in the Visual Arts (3)

305A Advanced Crafts (3)

306A,B Advanced Ceramics (3,3)

310A Watercolor (3)

312 Modern Art (3)

315A Jewelry (3)

441A Media Exploration for Teaching Art (3)

## Creative Photography and Computer Design Emphasis:

300 Writing in the Visual Arts (3)

338A Creative Photography (3)

363B Illustration (3)

441A Media Exploration for Teaching Art (3)

Art History (3)

Select two courses from the following:

338B Creative Photography (3)

439 Creative Photo Studio Projects (3)

478 Studio Expanded: Other Genre (3)

Select one course from the following:

423 Computer Animation (3)

483E Computer Assisted Graphics (3)

483F Design for Interactive Art (3)

Professional Preparation (24-27 units)

Art Ed 442 Teaching Art in the Secondary
School (3)

Education course work (9-12)

Student teaching (one semester full-time) (12)

#### **Program Requirements**

- Be advised by a faculty adviser in art education assigned by the art department chair.
- Fulfill credential requirements listed in the catalog within the School of Human Development and Community Service.
- 3. Meet the requirements listed under the Teaching concentration.
- Complete the major requirements prior to applying to the teacher education program.
- Be admitted to teacher education through the School of Human Development and Community Service prior to enrollment in Art Ed 442, professional education courses and student teaching.
- Be accepted for teacher education and student teaching based on candidate quotas, portfolio review, and evidence of success in completed university course work.
- 7. Be recommended by the faculty adviser in art education.
- 8. Complete Secondary Education 310 and 386 or equivalents.
- Pass C-BEST exam prior to admission to Teacher Education.
- 10. Have a G.P.A. of 2.89 overall, 3.0 in major.

#### Credential Information

Upon completion of the above program and the bachelor of arts degree and passing the NTE, the student is eligible for a partial credential, which meets state requirements for teaching art in grades K-12. Within the specified period of time from the beginning of a teaching assignment, 30 units of course work must be completed at an accredited college or university

to qualify for a clear credential. Credentials are issued from the institution where this requirement has been completed.

#### Multiple Subject Instruction

The following three courses are recommended for all students intending to teach in the elementary schools in multiple subject classrooms.

Art 380 Art and Child Development (3)

Music 333 Music and Child Development (3)

Theatre 402 Dramatic Activities for Activities for Children (3)

The following additional list of courses would be strongly recommended for students who wish to expand their knowledge in any or all of the arts:

Art 101, 103, 104, 106A, 107A, 201A,B, 310A,B, 330, 380, 441

Dance 101, 112, 122, 132, 142, 323A,B, 422

Music 111, 251, 281B,P,S,W, 283

Theatre 100, 263A,B, 276A, 277, 370A,B, 402A,B, 403A,B

#### **BACHELOR OF FINE ARTS IN ART**

The Bachelor of Fine Arts degree is a professional program providing directed studies in nine studio concentrations within the visual arts. The program is designed for students seeking in-depth preparation for specialized goals selected from one of the following areas: ceramics, crafts, creative photography, drawing and painting, entertainment art/animation, graphic design, illustration, printmaking, and sculpture.

The program develops the understanding and advanced specialized skills applicable to professional practice and to meet entrance requirements to graduate school.

#### **Admission Requirements**

Upon admission to the University as an art major, students are placed in the Bachelor of Arts category, whether entering as a freshman or transferring from a community college. Upon proof of completion of the 12 lower-division studio units listed below with a B or better grade-point average, students may contact the Art Department for changing their academic objective to the Bachelor of Fine Arts in Art.

Art 103 Two-Dimensional Design (3)

Art 104 Three-Dimensional Design (3)

Art 107A Beginning Drawing (3)

Art 107B Beginning Painting (3)

#### **Program Requirements**

The 132-unit Bachelor of Fine Arts degree program requires a minimum of 69 units in art: 12 units of Art History plus 57 units of studio art. The major is divided into 21 units of lower-division preparation and 48 upper-division units. In addition to the minimum 69-unit requirement for the B.F.A. degree, students must meet the other university requirements for a bachelor's degree (see the university Catalog and Class Schedule).

To earn a Bachelor of Fine Arts in Art, students must achieve grades of C or better in all art courses required for the degree.

In addition to Art 300 Writing in the Visual Arts (\*below), students must also take and pass the Examination in Writing Proficiency (EWP).

#### **CERAMICS CONCENTRATION**

Preparation (lower division—21 units)

106A,B Beginning Ceramics (3,3)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

Lower-division studio electives (3,3)

Concentration (upper division 48 units)

300 Writing in the Visual Arts\* (3)

306A,B Advanced Ceramics (3,3)

326A,B Ceramic Sculpture (3,3)

424A,B Glass Forming (3,3)

484A or 484B Special Studies (3,3,3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

#### **CRAFTS CONCENTRATION**

Preparation (lower division—21 units)

123 Descriptive Drawing (3)

201A,B Art and Civilization (3,3)

205A,B Beginning Crafts (3,3)

Lower-division studio electives (3,3)

Concentration (upper division 48 units)

300 Writing in the Visual Arts\* (3)

305A,B Advanced Crafts (3,3)

Select 12 units from:

306A,B Advanced Ceramics (3,3)

315A,B Jewelry (3,3)

330 Creative Papermaking (3)

364A,B Stained Glass (3,3)

485A,B,C, or F Special Studies in Crafts (3,3)

495 Internship in Art (3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

## CREATIVE PHOTOGRAPHY CONCENTRATION

Preparation (lower division—21 units)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

238 Photo Visual Concepts (3)

247 Introduction to Linoleum and Woodcut
Prints (3)

Lower-division studio electives (3,3)

Concentration (upper division—48 units)

300 Writing in the Visual Arts\* (3)

317A Life Studies, Drawing and Painting (3)

338A,B Creative Photography (3,3)

348 Artists' Books (3)

439 Creative Photo Studio Projects (3,3)

478 Studio Expanded: Other Genre (3)

489 Special Studies, Creative Photo (3,3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

## DRAWING AND PAINTING CONCENTRATION

Preparation (lower division—21 units)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

207A,B Drawing and Painting (3,3)

Lower-division studio electives (3,3)

Concentration (upper division—48 units)

300 Writing in the Visual Arts\* (3)

307A,B Drawing and Painting (3,3)

317A,B Life Studies, Drawing and Painting (3,3)

487A Special Studies, Painting (3)

487B Life Studies, Drawing (3)

Choose nine units from the following:

487A,B and/or C (3,3,3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

## ENTERTAINMENT ART/ANIMATION CONCENTRATION

Preparation (lower division—21 units)

117 Life Drawing (3)

201A,B Art & Civilization (3,3)

217 Life Drawing for Animation (3,3)

Select one course from:

123, 216A or 247 (3)

Lower-division studio elective (3)

Concentration (upper division—48 units)

300 Writing in the Visual Arts\* (3)

317A,B Life Studies, Drawing and Painting (3,3)

318A Drawing & Painting, Head and Hands (3)

318B Portraiture (3)

337 Animals and Wildlife Drawing (3)

353A Drawing for Animation (3)

353B Animation (3)

367 Elements of Sequential Art (3)

Choose six units of the following:

373 Cartooning & Caricature (3)

423 Computer Animation (3)

483 B Pictorial Background Illustration (3)

483F Design for Interactive Art (3)

4875 Special Studies, Sequential Art (3)

Art History (3,3)

Art Studio Electives and/or Interdisciplinary courses by approval (3,3)

#### **GRAPHIC DESIGN CONCENTRATION**

Preparation (lower division—21 units)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

223A,B Lettering and Týpography (3,3)

Lower-division studio electives (3,3)

Concentration (upper division—48 units)

300 Writing in the Visual Arts\* (3)

323A,B Graphic Design (3,3)

338A Creative Photography (3)

363A,B Illustration (3,3)

483A Special Studies, Graphic Design (3,3)

483E Computer Assisted Graphics (3)

495 Internship (3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

#### **ILLUSTRATION CONCENTRATION**

Preparation (lower division—21 units)

117 Life Drawing (3)

123 Descriptive Drawing (3)

201A,B Art and Civilization (3,3)

223A Lettering and Typography (3)

Lower-division studio electives (3,3)

Concentration (upper division—48 units)

300 Writing in the Visual Arts\* (3)

317A,B Life Studies, Drawing and Painting (3,3)

318A Drawing and Painting the Head and Hands (3)

323A Graphic Design (3)

363A,B Illustration (3,3)

483C Special Studies, Illustration (3,3)

495 Internship in Art (3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

#### **PRINTMAKING CONCENTRATION**

Preparation (lower division—21 units)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

207A Drawing and Painting (3)

247 Introduction to Linoleum and Woodcut Prints (3)

Lower-division studio electives (3,3)

Concentration (upper division—48 units)

300 Writing in the Visual Arts\* (3)

307A,B Drawing and Painting (3,3)

317A,B Life Studies (3,3)

338A Creative Photography (3)

347A, Printmaking Etching (3)

347B Printmaking Lithography (3)

487D Special Studies, Printmaking (3,3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

#### SCULPTURE CONCENTRATION

Preparation (lower division—21 units)

117 Life Drawing (3)

201A,B Art and Civilization (3,3)

216A,B Beginning Sculpture (3,3)

Lower-division studio electives (3,3)

Concentration (upper division—48 units)

300 Writing in the Visual Arts\* (3)

316A,B Sculpture (3,3)

317A,B or C Life Studies, Drawing and Painting (3,3)

326A Ceramic Sculpture (3)

336A,B Moldmaking and Cast Sculpture (3,3)

486A Special Studies, Sculpture (3,3)

Upper-division art history (3,3)

Upper-division studio art electives (3,3,3,3)

#### MINOR IN ART

Twenty-four units with a grade of C or better are required for a minor in art; a minimum of 12 units are to be in upper division courses in residence. A basic course in each of the following areas is required: (1) art history, theory, analysis and criticism; (2) design; (3) drawing and painting; and (4) crafts.

Recommended courses to meet the "basic courses" requirement are: (1) Art 201A or B; (2) Art 103 or 104; (3) Art 107A or B; (4) Art 106A or 205A. Completion of these courses will provide a reasonable foundation for entry into upper division courses. Students planning to qualify for a standard teaching credential specializing in elementary or secondary teaching with art as a minor must obtain approval from the Art Department.

#### **MASTER OF ARTS IN ART**

This program provides a balance of study and practice for those who wish a career in the visual arts, or who want to prepare for further graduate work in the field. The program offers the following areas of concentration: (1) drawing and painting (including printmaking); (2) sculpture; (3) crafts (including ceramics, wood, glass, jewelry/metalsmithing); (4) design (including graphic design, illustration, exhibition design, creative photography); and (5) art history.

#### Admission Requirements

- 1. Classified standing:
  - a. A baccalaureate degree in art with the same concentration as the graduate degree objective from an accredited institution, or 24 upper-division units in art of which 12 units must be in a concentration completed with grades of B or better. Applicants are advised that most upper-division courses require lower-division prerequisites. A faculty adviser should be consulted with regard to recommended courses.
  - b. GPA minimum of 2.5 in the last 60 semester units attempted.
  - c. Pass comprehensive review: held
    semi-annually, the comprehensive
    review is an evaluation of the candidate by a committee comprised of
    faculty teaching in the area of concentration. The committee reviews the
    student's creative work, statement of
    purpose, academic and other relevant
    qualifications; assigned research

- papers are required of art history applicants in lieu of a portfolio.

  Procedures, dates, and appointment times are available through the art department graduate office.
- d. Form a graduate committee.
- e. Development of an approved study plan.
- f. Art history program: reading knowledge of a foreign language may be required before advancement to candidacy.
- Conditionally classified standing:
   The same requirements as a. and b. above plus:
  - c. 1) Studio program: Participation in comprehensive portfolio review with a recommendation by the committee of conditional acceptance.
    - Art History program: satisfactory review of research papers by art history faculty.
  - d. Enrollment is allowed in graduatelevel courses with the exception of Art 500A,B; 511; 512; 597; and 598.
  - e. Passing the comprehensive review will be required for classified standing.

#### Study Plan

The degree program requires 30 units of graduate study approved by the student's graduate committee of which 15 must be 500-level courses. The 30 units are distributed as follows:

- 1. Core courses in art history, philosophy, analysis and criticism (9 units)
  - a. Studio program:
     Art 500A Graduate Seminar in Major Field (3)
     Art history program:
     Art 511 Seminar on the Content and Method of Art History (3)
     (ADMISSION WITH CLASSIFIED

STANDING ONLY)

b. Studio Program:
 Art 500B Graduate Seminar in Major Field (3)

 Art history program:
 Art 512 Seminar on Selected Topics in Art History (3)
 (ADMISSION WITH CLASSIFIED STANDING ONLY)

- c. 400-level course in art history, theory, analysis or criticism on the recommendation of the major adviser.
- 500-and/or 400-level courses in an area of concentration (minimum of six units at 500-Level) (12 units)
- Additional course work in the area of concentration or approved electives (3 or 6 units)
- 4. Art 597 Project (for studio); or Art 598 Thesis (for art history) (3 or 6 units)

The M.A. study plan must be completed with no grade below C, a B average, and B or better in all courses in the area of concentration. Every graduate student is required to demonstrate writing ability commensurate with the baccalaureate degree. Two graduate seminars are certified to fulfill this university requirement. The Department of Art requires the studio candidate for the Master of Arts in Art to exhibit the project in one of the department's graduate galleries. The art history candidate is required to submit a written thesis based on a specific topic of research.

For further information consult the graduate program adviser and read the University Graduate Regulations section of this catalog.

#### MASTER OF FINE ARTS IN ART

The Master of Fine Arts in Art features a rigorous studio program for the serious, responsible and talented student. The curriculum and faculty challenge students to focus on the goal of becoming professional artists.

The M.F.A. program provides in-depth study within a 60-unit approved study plan in the following areas of concentration: (1) design (including graphic design, illustration, and exhibition design); (2) ceramics (including glass); (3) crafts (including jewelry/metalsmithing, and woodworking); (4) sculpture; (5) drawing, painting, and printmaking; and (6) creative photography.

#### Admission Requirements

- 1. Classified standing:
  - a. Baccalaureate degree in art with the same concentration as the graduate degree objective from an accredited institution, or 24 upper-division units in art, 18 of which must be in the concentration completed with grades of B or better. Applicants are

- advised that most upper-division courses require lower-division prerequisites.
- b. Minimum grade-point average of 2.5 in the last 60 units attempted and have been in good standing at the last college attended.
  - c. Pass the comprehensive portfolio review: held semi-annually, the comprehensive portfolio review is an evaluation of the candidate by a committee comprised of faculty teaching in the area of concentration. The committee reviews the student's creative work, statement of purpose, academic and other relevant qualifications. Procedures, dates, and appointment times are available through the art department graduate office.

If the student's portfolio is not adequate, the applicant could still be recommended for conditionally classified standing by the faculty comprehensive review committee. However, the comprehensive portfolio review must be repeated.

- d. Form a graduate committee.
- e. Develop an approved study plan.
- Conditionally Classified standing:
   Conditionally classified students may enroll in graduate courses with the exception of Art 500A,B; 511, 512, 597; and 598. The comprehensive portfolio review must be repeated and passed to be recommended for classification.

#### Study Plan

The M.F.A. degree program requires 60 units of graduate study. The study plan must be completed with grades of C or better, an overall B average or better and grades of B or better in the concentration. Every graduate student is required to demonstrate writing ability commensurate with the baccalaureate. Two graduate seminars are certified to fulfill this university requirement. The 60-unit study plan is distributed as follows:

Theory, criticism: Art 500A, 500B (6) Art History (9)

Studio Area of concentration (24) Studio Electives in art (12)

Capstone Experience: The first of Auto-Studio Project (6) Auto-Studio Project (6)

#### Master of Fine Arts Project

The M.F.A. project exhibition constitutes a professional one-person art exhibit. It is installed in one of the department's graduate galleries and announced for public view by the student as the final phase of the M.F.A. program requirements.

#### POSTBACCALAUREATE UNCLASSIFIED

Students who do not have the prerequisites to qualify for the graduate program may apply to the university as a postbaccalaureate-unclassified student. Typically, students in this category have a bachelor's degree in art but need to meet the prerequisites for a different concentration; or did not major in art and must complete courses for the 24 upper-division art unit requirement. To qualify for admission, an applicant must hold a baccalaureate degree from an accredited institution, have attained a grade-point average of at least 2.5 in the last 60 units attempted and have been in good standing at the last college attended. Admission with postbaccalaureate standing does not constitute admission to the art graduate program or graduate degree curricula.

#### **CERTIFICATE IN MUSEUM STUDIES**

Courses leading to the certificate are designed to educate students in museum practices in preparation for entry into the museum profession. The curriculum includes instruction in the historical development and philosophical basis of collections, exhibitions and their design, and curatorship. A museum internship is required. The certificate in museum studies may be undertaken as a selfcontained program or may be taken in conjunction with the Master of Arts in Art degree or the Master of Fine Arts in Art degree or, by special permission, with other graduate degrees in the university. (For an M.A. or M.F.A. in Art degree with an exhibition design emphasis see M.A. and M.F.A. emphases under the design concentration.)

#### Prerequisites

- B.A. in Art or other major by special permission
- 2. Specific course prerequisites:
  - a. 12 units in upper-division art history
  - b. 6 units in graphic design and exhibition design
  - c. 3 units of advanced writing (Communications 435 Editorial and Critical Writing; or Communications

362 Public Relations Writing; or English 301 Advanced College Writing)

d. 3 units of beginning accounting

#### Study Plan

The certificate program requires 24 units.

The 24 units are distributed as follows:

Art 464 Museum Conservation (3)

Art 481 Seminar in Art History (3)

Art 483D Exhibition Design (3)

Art 495 Internship in Art (3)

Art 501 Curatorship (3)

Art 503D Exhibition Design (3,3)

Course in museum education (3)

For further information, consult the Department of Art.

#### ART COURSES

#### 101 Introduction to Art (3)

Historical and contemporary art forms of painting, sculpture, architecture and design. Field trips required. Not open to art majors for credit except by permission of Art Department. (3 hours lecture)

#### 103 Two-dimensional Design (3)

Art concepts, aesthetic elements and materials of two-dimensional design and visual organization. (6 hours activity) (CAN ART 14)

#### 104 Three-dimensional Design (3)

Art concepts, aesthetic elements and materials of three-dimensional design and spatial organization. (6 hours activity) (CAN ART 16)

#### 106A Beginning Ceramics (3)

Form as related to ceramic materials, tools, processes. Kiln loading and firing, hand building, wheel throwing and raku. Instructional fee. (9 hours laboratory) (CAN ART 6)

#### 106B Beginning Ceramics (3)

Prerequisites: Art 106A. Form as related to ceramics. Glaze batching and its application, and the presentation of ceramic technique. (9 hours laboratory)

#### 107A Beginning Drawing (3)

Traditional and contemporary use of drawing materials integrated with visual experiences and art concepts. (6 hours activity) (CAN ART 8)

#### 107B Beginning Painting (3)

Traditional and contemporary use of painting materials integrated with visual experiences and art concepts. (6 hours activity)

#### 117 Life Drawing (1 or 3)

Drawing the live model. May be repeated to a maximum of 4 units. Duplicate enrollment of this course within the same semester is permissible. (3 hours activity for each unit)

#### 123 Descriptive Drawing (3)

Descriptive drawing, rendering techniques and theories representing forms of nature. (6 hours activity)

#### 201A,B Art and Civilization (3,3)

The ideas, forms and styles of the visual arts as they developed in various cultures from prehistoric time to the present. (3 hours lecture) (201A = CAN ART 2, 201B = CAN ART 201A + 201B = CAN ART SEQ A)

#### 205A Beginning Crafts (3)

Traditional and contemporary concepts and processes with emphasis on design principles in the development of aesthetic forms based on function. (9 hours laboratory)

#### 205B Beginning Crafts (3)

Prerequisites: Art 103, 104 and 205A. Art 104 may be taken concurrently. The development of aesthetic forms based on function, with emphasis on design principles and the creative use of hand tools and power equipment. (9 hours laboratory)

# 207A,B Drawing and Painting (Experimental Methods and Materials) (3,3)

Prerequisites: Art 107A,B, 117 or equivalents. Traditional and contemporary concepts, methods and materials. (6 hours activity)

#### 216A,B Beginning Sculpture (3,3)

Prerequisite: Art 104. The creative use of wood and metal, power equipment and hand tools. Instructional fee. (9 hours laboratory) (216A = CAN ART 12)

#### 217 Life Drawing for Animation (3)

Prerequisite: Art 117 (3 units). A continuing course of the human figure. Designed to develop animation student's skills of drawing from observation. Course may be repeated for credit. (6 hours activity)

#### 223A Lettering and Typography (3)

Prerequisite: Art 103. The history, design and use of letter forms; the rendering and use of hand-lettered forms. (6 hours activity)

#### 223B Lettering and Typography (3)

Prerequisite: Art 223A. The history, design and use of letter forms; techniques for rough and comprehensive layouts and introduction to computer graphics. (6 hours activity)

#### 238 Photo Visual Concepts (3)

Prerequisite: Art 103. An introductory photography course for art majors. Course content includes the study of photographic vision and design, visual conceptualization and examination of the qualities of light through the use of instant and automatic cameras.

# 247 Introduction to Linoleum and Woodcut Prints (3)

Prerequisites: Art 107A,B. An exploration of woodcut, linocut and monoprint as a medium of personal expression. (9 hours laboratory)

#### 300 Writing in the Visual Arts (3)

Prerequisite: junior standing. Principles, practices and objectives of writing in the visual arts. Includes descriptive, analytical and expressive essays; project and grant proposals; artist's statements; resumes; and professional correspondence. Satisfies the classroom portion of the upper-division writing requirements for art majors.

#### 301 Ancient Art (3)

The developments in art from the Paleolithic to late antiquity. (3 hours lecture)

#### 302 Medieval Art (3)

The developments in art from the late antiquity through the Gothic. (3 hours lecture)

#### 305A,B Advanced Crafts (3,3)

Prerequisites: 205A and 205B. Advanced concepts and processes in the development of aesthetic forms based on function, emphasizing individual growth and personal expression. (9 hours laboratory)

#### 306A,B Advanced Ceramics (3,3)

Prerequisites: Art 103, 104 and 106A,B or consent of instructor. Forms and the creative use of ceramic concepts and materials; design, forming, glazing and firing.

Instructional fee. (9 hours laboratory)

#### 307A,B Drawing and Painting (3,3)

Prerequisites: Art 107A,B, 117, 207A,B or equivalents. The concepts, materials and activities of drawing and painting, emphasizing individual growth, plan and craft. (6 hours activity)

#### 310A,B Watercolor (3,3)

Prerequisites: Art 107A,B or equivalents. An exploration of watercolor media related to varied subject matter and design applications. Includes field trip activity. Provides skills and concepts useful for school art programs. (6 hours activity)

#### 311 Foundations of Modern Art (3)

Prerequisite: upper division standing. The history of painting and sculpture from the French Revolution to the end of the 19th century. (3 hours lecture)

#### 312 Modern Art (3)

Prerequisite: upper division standing. The history of painting, graphic arts and sculpture from late 19th century to World War II. (3 hours lecture)

#### 315A,B Jewelry (3,3)

Prerequisites: Art 205A and 305A. Art 305A may be taken concurrently. Design and creation of jewelry. (9 hours lab)

#### 316A,B Sculpture (3,3)

Prerequisites: Art 104 and 216A. Sculptural materials and processes. Instructional fee. (9 hours laboratory)

#### 317 Life Studies (3)

Prerequisites: three units lower division life drawing. Drawing, painting and sculpture from the live model. (9 hours laboratory)

#### 317A Drawing and Painting

317B Drawing and Painting

#### 317C Sculpting Life Forms (3)

Prerequisites: ART 103, 104, 117(3), 217 and 317A or 318A. A three-dimensional investigation of any life form, its characteristics and expressive possibilities.

# 318A Drawing and Painting the Head and Hands (3)

Prerequisites: Art 107A,B and Art 117. Specialized problems in construction and anatomy of the human head and hands, and their principal use in drawing, painting and illustration. (9 hours laboratory)

#### 318B Portraiture (3)

Prerequisites: Art 107A,B. 3 units of Art 117. Comprehensive problems in composition, concept, content and execution of portraits. (9 hours laboratory)

# 320 History of Architecture Before the Modern Era (3)

A study of selected monuments from Stonehenge through the late Baroque. Interrelationship between patronage, style, function, structural principles and technological developments. (3 hours lecture)

#### 323A,B Graphic Design (3,3)

Prerequisites: Art 103, 223A and 223B or consent of instructor. Development and projection of ideas in relation to the technical, aesthetic and psychological aspects of advertising art. Intermediate use of computer graphics. (6 hours activity)

#### 324 Glass Casting (3)

Prerequisites: Art 103 and 104 or consent of instructor. Hot glass laboratory equipment and casting techniques. Designing molds and handling hot glass. (9 hours laboratory)

#### 326A,B Ceramic Sculpture (3,3)

Prerequisites: Art 103, 104, 117 or consent of instructor. Development of ceramic technology into individual sculptural forms and techniques. (9 hours laboratory)

#### 330 Creative Papermaking (3)

Prerequisites: Art 103 and 104, or consent of instructor. The use of papers and fibers as an art form. (9 hours laboratory)

# 336A,B Casting Techniques and Theories of Cast Sculpture (3,3)

Prerequisite: Art 316A. Theories and techniques of rigid and flexible moldmaking incorporated with both cold material and hot metal casting processes. Course is recommended for concentrations in Entertainment Art/
Animation, Ceramics and Crafts; required for Sculpture majors. (9 hours laboratory)

#### 337 Animal and Wildlife Drawing (3)

Prerequisite: Art 107A,B, 117, 317A.

Principles and practices of drawing animals, including construction, anatomy, texture, movement and expression. Fundamentals, historical information and critiques are covered in the classroom; field studies are conducted at various zoos and wildlife habitats. (6 hours activity)

#### 338A Creative Photography (3)

Prerequisite: Art 103 or its equivalent. The photographic media in personal expression. Historical attitudes and processes; new materials and contemporary aesthetic trends. Field trips required. (9 hours laboratory)

#### 338B Creative Photography (3)

Prerequisite: Art 338A. The photographic medium as personal expression. Historical and contemporary aesthetic issues. Exploration of black and white, color and digital media. Field trips required. (9 hours laboratory)

#### 343 3-D Cyber Environments (3)

Prerequisites: ART 103 and 104; and knowledge of any Macintosh-based design program (Photoshop, Quark, Illustrator, etc., or consent of instructor). Three-dimensional environments designed in the computer. Forms, spatial relationships, structure, mass manipulation. Course may be repeated for credit.

#### 347A Printmaking Etching (3)

Prerequisites: Art 107A,B, 117, and 247. Concept development, exploration and materials involved in printmaking techniques. Includes etching, aquatint. (9 hours laboratory)

#### 347B Printmaking Lithography (3)

Prerequisites: Art 107A,B, 117, and 247. Concept development, exploration and materials involved in lithography. (9 hours laboratory)

#### 348 Artists' Books (3)

Prerequisites: Art 103, 107A or 247, or consent of instructor. Personal vision and concepts applied to the book form as art; the history and aesthetics of artists' books.

(6 hours activity)

#### 353A Drawing for Animation (3)

Prerequisites: Art 117 and 217.

Corequisite Art 317A. Principles and practices of drawing characters, backgrounds and objects for animation. Construction, character design, movement and expression are taught in relation to current studio practice. May be repeated once for credit. (9 hours laboratory)

#### 353B Animation (3)

Prerequisite: Art 353A. Advanced principles and practices of construction, character design, cleanup, movement and expression.

Content is taught in relation to current studio practice. May be repeated once for credit. (9 hour laboratory)

#### 357 Woodcuts and Monotypes (3)

Prerequisites: Art 107A,B or equivalents. The exploration of the woodcut and monotype as a means of personal expression. Emphasis on traditional as well as contemporary materials and trends. Course may be repeated once for credit. (9 hours laboratory)

#### 363A Illustration (3)

Prerequisites: Art 103, 107A,B and 117. Story, book, magazine, and film illustration. (6 hours activity)

#### 363B Illustration (3)

Prerequisite: Art 363A. Computer aided illustration. (6 hours activity)

#### 364A,B Stained Glass (3,3)

Leaded and stained glass; individual exploration, growth, planning and craftmanship. (6 hours activity)

#### 367 Elements of Sequential Art (3)

Prerequisite: Art 317A. Theory and practice of pictorial narrative in film story-board and graphic novel. Includes character and scenic design; story sketch, "breakdown" and production design. Considerations: plot, scene, exposition, transition and continuity. Individual and team projects. Repeatable once for credit. (6 hours activity)

#### 373 Cartooning and Caricature (3)

Prerequisites: Art 107A, 107B, 117, or approval by instructor. Principles and practices of cartooning and caricature construction, anatomy and expression. Study will also include a historical overview of the field with an emphasis on professional applications and the impact of computer graphics. (6 hours activity)

#### 380 Art and Child Development (3)

Art concepts, materials and processes as they relate to child development. (6 hours activity)

#### 401 History of Women Artists (3)

Prerequisite: Art 201B. Study of art made by women in the context of major art historical developments from the 10th century to the present. Analysis of images of women and the evolution of gender stereotypes in art. (3 hours lecture)

#### 413 History of Contemporary Art (3)

Prerequisites: 312 and 461 or consent of instructor. A historical perspective of contemporary art beginning with major developments in Europe and the United States in the 1950s. Emphasis on new materials, new exhibition methods, and in particular the major conceptual issues raised by individual artists and groups. (3 hours lecture)

#### 420 History of Modern Architecture (3)

Prerequisite: Art 201B (art majors) or Art 101 (non-art majors). Development of modern architecture. The interrelationship among architecture, technology and society, from the industrial and political revolutions of the 18th century to the present. Exploration of national differences and various approaches to city planning. (3 hours lecture)

#### 423 Computer Animation (3)

Prerequisite: Art 323A or 363B or equivalent. The exploration of advanced computer application in the creation of visual images and concepts through three-dimensional modeling and animation. Field trips required. (6 hours activity)

#### 424A,B Glass Forming (3,3)

Prerequisites: Art 103, 104, 324 or consent of instructor. The chemistry, handling and manipulation of glass and its tools and equipment for the ceramic artist. (9 hours laboratory)

#### 431 Renaissance Art (3)

Prerequisite: Art 201B (art majors) or Art 101 (non-art majors). Painting, sculpture and architecture from the late 13th to 16th century in Italy. (3 hours lecture)

#### 432 Baroque Art (3)

Painting, sculpture and architecture of the 17th century in Europe. (3 hours lecture)

#### 439 Creative Photo Studio Projects (3)

Prerequisites: ART 338A and B or consent of instructor. This is an advanced technical class designed to perfect and refine photographic skills. Students will learn to integrate technical skills with creative options. Course may be repeated. Maximum nine units for credit.

#### 441 Media Exploration for Teaching Art (3)

Prerequisites: Art 103, 104, 107A,B, 205A or consent of instructor. Exploring the art media used in secondary school art programs today. Materials for secondary art curriculum. Two and three dimensional media in subject matter applications. (6 hours activity)

# 448 Special Studies: Artists' Books and Art (3)

Prerequisites: Art 102, 107A, or 347A/348 or consent of instructor. A studio art course for advanced students who want to continue to explore the book form as it relates to their personal aesthetic goals. (6 hours activity)

#### 453A,B Exhibition Design (3,3)

Technical and aesthetic experience in problem-solving exhibition design concepts, evaluation and design analysis. The production of exhibitions in the University Art Gallery, their selection, design, installation, lighting and supportive interpretive material. (More than 9 hours laboratory)

#### 460 Pre-Columbian Art (3)

Prerequisites: Art 201A,B or consent of instructor. An introduction to the art and architecture of Meso and South America from the early formative stage to the Spanish Conquest. Emphasis on aesthetic achievement with varying contexts of pre-Columbian culture. (3 hours lecture)

#### 461 American Art: 20th Century (3)

Painting and sculpture in America during the 20th century. The role of the visual arts in helping to define, reflect and challenge American values and institutions. (3 hours lecture)

# 462 Latin American Art from 1800 to the 1950s (3)

Prerequisite: Art 311 or 312. History of painting, sculpture and the graphic arts in Latin America. Emphasis on the changing relationship to European Modernism and major principles of Latin American cultural and political identity as expressed in art. (3 hours lecture)

#### 464 Museum Conservation (3)

Prerequisite: Art 453A, six units of art history or anthropology. The examination of the preservation of objects; the history, role and principles of conservation within a museum context. Three combined sessions at Conservation Center, LACMA; Huntington Library; J. Paul Getty Museum; and Museum of Cultural History, UCLA. (3 hours lecture)

#### 466 Museum Education (3)

Prerequisite: six units 300-400 Art History or equivalent. History of museum education, its philosophy and issues. Relationship with other museum departments, outreach programs, new technology. Events organization, writing interpretive materials, budgets and grants, conducting tours. Lectures, field trips and guest speakers. (3 hours lecture)

# 470 History and Aesthetics of Photography (3)

Prerequisites: 201A,B. Photography from ancient optical observations through 19th-century invention to 20th-century acceptance as an art form. Aesthetic movement and influential innovators. Lectures, slides and class discussion. (3 hours lecture)

#### 475 Professional Practices in the Arts (3)

Prerequisite: Art major with junior or above standing. Practices unique to the visual arts, including an overview of changing concepts in the art market, traditional roles in cultural context, portfolio development, strategies for protecting ideas and avoiding abuses, and long term professional development. (3 hours lecture)

#### 478 Studio Expanded: Other Genre (3)

Prerequisite: Any 400-level studio art course or permission of instructor. Explora-tion of various methods of expanding traditional studio approaches through the investigation of installation, performance and video art. May be repeated for credit to a maximum of 12 units, but no more than three units in a single semester. (6 hours activity)

#### 480T Selected Topics in Art History (3)

Prerequisites: Art 201A or B and consent of instructor. Detailed study of the work of individual artists, patronage in particular places, specific pictorial, sculptural and architectural programs or art history periods. Topics will be listed in the class schedule. Repeatable if topic is different. (3 hours lecture)

#### 481 Seminar in Art History (3)

Prerequisite: six units upper-division art history or equivalent. Study and evaluation in one area of art history and appreciation.

May be repeated up to a maximum of 6

#### 483 Special Studies in Design (3)

Prerequisite: a minimum of six upperdivision units in area emphasis or equivalent. Maximum of 12 units, but no more than 3 units in any one area in a single semester.

#### 483A Graphic Design

Advanced use of computer graphics.

(6 hours activity)

# 483B Pictorial Background Illustration (3)

(See description below)

483C Illustration (6 hours activity)

#### 483D Exhibition Design

(More than 9 hours laboratory)

#### 483 B Pictorial Background Illusatration (3)

Prerequisite: ART 363A. Team collaboration and individual development through the exploration of story concepts, research, design and media for rendering and painting background environments. Exposure to historical precedents, color theory, perspective, theatrical composition, painting and drawing media, and stylization for dramatic impact. Course may be repeated for credit. Maximum 12 units.

#### 483E Computer Assisted Graphics (3)

Prerequisites: Art 323A or Art 363A and consent of instructor. Theory and practice of design using the computer. Students will explore the numerous applications of the computer through lecture demonstration, studio/laboratory experience, guest speakers and field trips. Maximum of 12 units, but no more than three units in a single semester. Instructional fee. (9 hours laboratory)

#### 483F Design for Interactive Art (3)

Prerequisites: Art 483E. Exploration of the creation of interactive art and design projects. A concentration in the advanced visual organization systems of art and design and how to apply those techniques to an interactive computer environment. Course may be repeated once for credit. (9 hours laboratory)

#### 83G Entertainment Graphics (3)

Prerequisites: ART 323A, 323B, and 483E. An advanced course in entertainment graphers focusing on structure, procedure and standards of the entertainment design field. Students will work on projects from a major entertainment design group, developing concepts and designs for comparison with processional solutions. Course may be repeated for credit. Maximum six units.

#### 484 Special Studies in Ceramics (3)

Prerequisite: a minimum of six upper-division units in ceramics. Maximum of 12 units, out no more than three units in any one area n a single semester. (9 hours laboratory)

**484A Ceramics** 

484B Glass Forming

484C Glass Casting

#### 485 Special Studies in Crafts (3)

Prerequisite: a minimum of six upper-division units in designated area or consent of instructor. Maximum of 12 units, but no more than three units in any one area in a single semester. (9 hours laboratory)

485A Jewelry

485B General Crafts

485C Metalsmithing

485F Papermaking

#### 486 Special Studies in Sculpture (3)

Prerequisites: Art 316A,B and consent of instructor. Maximum of 12 units but no more than three units in a single semester. (9 hours laboratory)

486A Modeling and Fabrication.

486B Casting

# 487 Special Studies in Drawing and Painting and Printmaking (3)

Prerequisites: a minimum of six upperdivision units in drawing and painting, or consent of instructor. Maximum of 12 units, but no more than three units in any one area in a single semester.

487A Painting

(6 hours activity)

#### 487B Life Studies: Drawing and/or Painting

(9 hours laboratory)

#### 487C Drawing

(6 hours activity)

**487D Printmaking Instructional fee.** (9 hours laboratory)

#### 487S Special Studies in Sequential Art (3)

Prerequisite: Art 367. Individual investigation and development of a specialized portfolio in one or more of the following: character design; story sketch and/or production design; storyboard; or graphic novel. Course may be repeated for credit. (6 hours activity)

# 489 Special Studies in Creative Photography (3)

Prerequisite: a minimum of six upper-division units in photography courses or equivalent. Photography as personal expression.

Maximum of 12 units but no more than three units in a single semester. (9 hours laboratory)

#### 495 Internship in Art (3)

Prerequisite: senior standing as a declared BFA in Art major. Work in a specific art field in business or industry.

#### 499 Independent Research (1-3)

Open to advanced students in art with consent of department chair and written consent of instructor. May be repeated for credit.

#### 500A Graduate Seminar in Major Field (3)

Prerequisite: Art 500A classified standing. Directed research in the area of major emphasis. Oral and written material on historical backgrounds and developments in art as they relate to individual intent as an artist and in support of the master's project. (with 500B meets graduate level writing requirement).

#### 500B Graduate Seminar in Major Field (3)

Prerequisite: Art 500A classified standing. Problems and issues in art. Intellectual clarification and verbal articulation of individual intent as an artist. Oral and written material in support of the master's project. (with 500A meets graduate level writing requirement).

#### 501 Curatorship (3)

Prerequisites: B.A. in art, anthropology or other major by special permission, and Art 466 and 481. The curator collects, cares for and studies objects.

#### 503 Graduate Problems in Design (3)

Prerequisite: consent of instructor.

Planning, development and evaluation of individual projects listed below. Maximum of 12 units in each area, but no more than three units in any one area in a single semester.

503A Graphic Design

(6 hours activity)

503C Illustration

(6 hours activity)

503D Exhibition Design

(More than 9 hours laboratory)

#### 504 Graduate Problems in Ceramics (3)

Prerequisite: consent of instructor. Planning, development and evaluation of individual projects in ceramics, glass forming and glass casting. Maximum of 12 units in each area but no more than three units in a single semester. (9 hours laboratory).

504A Ceramics

504B Glass Forming

504C Glass Casting

#### 505 Graduate Problems in Crafts (3)

Prerequisite: consent of instructor.

Planning, development and evaluation of individual projects listed below. Maximum of 12 units in each area but no more than three units in a single semester. (9 hours laboratory).

505A Jewelry

505B General Crafts

#### 506A,B Graduate Problems in Sculpture (3,3)

Prerequisite: consent of instructor.

Planning, development and evaluation of individual projects in sculpture. Maximum of 12 units in each area but no more than three units in a single semester. (9 hours laboratory).

#### 507 Graduate Problems in Drawing, Painting and Printmaking (3)

Prerequisite: 12 units of upper-division drawing and painting. Planning, development and evaluation of individual projects listed below. Maximum of 12 units in each area but no more than three units in a single semester.

507A Painting

(6 hours activity)

507B Life Drawing

(9 hours laboratory)

#### 507C Drawing

(6 hours activity)

# **507D Printmaking Instructional fee.** (9 hours laboratory)

#### 508A,B Graduate Problems in Creative Photography (3,3)

Prerequisite: consent of instructor.

Planning, development and evaluation of individual projects in photography. Maximum of 12 units in each area, but no more than three units in a single semester. (9 hours laboratory).

# 511 Seminar on the Content & Method of Art History (3)

Prerequisite: Art 481 or consent of instructor. Methods of research, analysis and theories of art historical scholarship. May be repeated up to a maximum of 6 units.

#### 512 Seminar on Selected Topics in Art History (3)

Prerequisites: appropriate upper-division Art course approved by instructor and Art 511. Analysis and evaluation of specific works and their historical significance including cultural, social and economic circumstances. May be repeated up to a maximum of 6 units.

#### 597 Project (3 or 6)

Prerequisites: Art 500A,B, written consent of instructor and recommendation of the student's graduate committee. Art 500B may be taken concurrently with Art 597 on approval of instructor. Development and presentation of a creative project in the concentration beyond regularly offered coursework.

#### 598 Thesis (3 or 6)

Prerequisites: Art 511, 512, written consent of instructor and recommendation of the student's graduate committee.

# 599 Independent Graduate Research (1-3)

Open to graduate students in art with consent of department chair and written consent of instructor. May be repeated for credit.

#### ART EDUCATION COURSES

# 442 Teaching Art in the Secondary School (3)

Prerequisite: admission to teacher education. Objectives, methods and practices for teaching art in secondary schools. Required before student teaching of majors in art for the single subject teaching credential.

#### 449E Externship in Secondary Teaching (3)

See description and prerequisites under Division of Teacher Education. Offered every fall semester.

#### 449I Internship in Secondary Teaching (10)

See description and prerequisites under Division of Teacher Education. Concurrent enrollment in Art Education 449S required. Offered every spring semester.

#### 449S Seminar in Secondary Teaching (2)

Seminar for student teachers in art. The practical aspects of art instruction in secondary schools. Concurrent enrollment in Art Education 4491 required. Offered every spring semester.

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#### **PROGRAM COUNCIL**

The program council consists of faculty and non-faculty from on and off-campus groups who provide direction and support for the Asian American Studies Program: Gloria Bogdan (Anthropology, Orange Coast College), Jeffrey Brody (Communications), Franklin E. Canalita (Student Health), Juana Chen (Physics), Megan Cook (Admissions and Records), Mary Kay Crouch (English), William Gudykunst (Speech Communications), Art Hansen (History),

Craig K. Ihara (Philosophy), Ellen Junn (Child Develop-ment), Daniel Kee (Psychology), Mikyong Kim-Goh (Human Services), Lisa Mori (Psychology), Michael Perez (Sociology), Nawang Phuntsog (Elementary and Bilingual



Bhuvana Rao (Anthropology), Prem Saint (Geological Sciences), Sherri Sawicki (English), Son Kim Vo (Intercultural Development Center), Ivy Yee (Elementary and Bilingual Education), Simone Yu (Library).

#### INTRODUCTION

Education),

The minor in Asian American Studies is designed for students who have an interest in learning about the experiences, expression and social conditions of Americans of Asian ancestry, including those whose origins trace back to south, as well as east Asia and the Pacific Islands.

Cross-disciplinary in nature, the minor draws on a wide variety of courses offered throughout the university which relate to Asian American history, art, literature, politics, socioeconomics, psychology and relations to other ethnic and sociopolitical groups. As a new program, approved in 1996, many new courses specific to the minor will be introduced which are not yet listed in this catalog.

The goals of the minor are to encourage more students to do work in the area and to prepare students in selected career paths where sensitivity to and knowledge of Asian American issues, history and artistic expression is important. These include careers in counseling, human services, nursing, public administration, law and the health professions; teaching careers in history, English, political science, psychology, sociology, as well as elementary school education.

Two features of the minor are of special note. First, there is a conscious effort to inform and sensitize students to other ethnic groups and to their interrelationships and commonalities. Second, there is a definitive emphasis on contributing to Asian American communities and, thereby, the larger society. The requirement in experiential and community based learning is one example of our effort to combine learning with service.

# studies

# PROGRAM IN ASIAN AMERICAN STUDIES

#### PROGRAM COORDINATOR:

Craig K. Ihara

#### **PROGRAM OFFICE:**

Education Classroom Building 475

#### PROGRAM OFFERED

Minor in Asian American Studies

#### **PARTICIPATING FACULTY**

Jeffrey Brody (Communications), Mary Kay Crouch (English), Thomas Fujita Rony (Asian American Studies), William Gudykunst (Speech Communications), Art Hansen (History), Mikyong Kim-Goh (Human Services), Nana Sadamura (CDC), Yichin Shen (English and Comparative Literature), Son Kim Vo (Intercultural Development Center).

#### ADVISER

Thomas Fujita Rony
Education Classroom Building 456

#### **MINOR IN ASIAN AMERICAN STUDIES**

The minor consists of 21-23 required units, distributed between core, breadth, topical, fieldwork, and language proficiency requirements, with at least six units being upper-division units.

#### I. Core Courses (6 units)

ASAM 201/ History 201 History of Asian Americans (3)

ASAM 105 Introduction to Asian American Studies (3)

#### II. Comparative Cultures Breadth Requirement (6 units)

A. American Studies 301 The American Character (3)

#### B. Elective (3)

A course on a different minority group in America should be selected from an approved listing in consultation with the program coordinator or a faculty adviser. Electives include, but are not limited to the following:

Afro-Ethnic 309 The Black Family (3)

Afro-Ethnic 310 Black Women in America (3)

Afro-Ethnic 311 Intercultural Socialization (3)

Afro-Ethnic 317 Black Politics (3)

Afro-Ethnic 320 Black American Intellectual Thought (3)

Afro-Ethnic 335 History of Racism (3)

Afro-Ethnic 422 Psychology of the Afro-American (3)

Amer Studies 411 The White Ethnic in America (3)

Amer Studies 377 Prejudice and American Culture (3)

Chicano Studies 220 Mexican Heritage (3)

Chicano Studies 305 The Chicano Family (3)

Chicano Studies 337 Contemporary Chicano Literature (3)

Chicano Studies 403 Cultural
Differences in Mexico and the
Southwest (3)

Chicano Studies 431 The Chicano Child (3)

Chicano Studies 440 Mexican Intellectual Thought (3) Chicano Studies 445 History of the Chicano (3)

Chicano Studies 450 The Chicano and Contemporary Issues (3)

History 190 Survey of American
History with Emphasis on Ethnic
Minorities (3)

Religious Studies 305 Contemporary
Practices of the World's
Religions (3)

Sociology 133 Introduction to Gerontology (3)

Sociology 431 Minority Group Relations (3)

#### III. Topical Requirements (6 units)

Select two three-unit courses in consultation with a faculty adviser. Topics include, but are not limited to the following courses. A complete list is available in the program office.

ASAM 320 Asian American Creative Expression (3)

Anthropology 347 Peoples of Asia (3)

Communications 438T Specialized Reporting (when topic covers reporting on minority affairs) (3)

Comp Lit 423T Topics in Asian Literature (3)

English 257 Writing Haiku (3)

English 323T Cultural Pluralism in American Literature (when topic covers Asian American author) (3)

Geography 340 Asia (3)

ASAM 411 World War II Japanese-American Evacuation

History 464B History of Contemporary Southeast Asia (3)

History 465A,B History of India (3)

Philosophy 350 Asian Philosophy (3)

Poli Sci 433 Politics of the Asian Pacific (3)

Poli Sci 434 China and Japan: Friends or Foes? (3)

Poli Sci 455 International Relations of South Asia (3)

Religious Studies 270 Introduction to Asian Religions (3)

#### IV. Experiential Requirement (3-5 units)

Students may choose one of the following courses to meet this requirement:

Fieldwork-Practicum Course (3)

This course provides students with an internship at an Asian American community agency or organization. The course requires

students to display knowledge, understanding, and application of research, methods, and culturally-relevant skills to solving real world problems in an Asian American community setting. Please contact the program coordinator for information on the course number and scheduled offerings.

Asian Language Course (3-5 units)

One course in any Asian language offered through the Department of Foreign Languages and Literature will meet this requirement (e.g. Vietnamese 101, Chinese 101, Japanese 101, Japanese 213, Japanese 214).

#### **ASIAN AMERICAN STUDIES COURSE**

101 Introduction to Ethnic Studies (3) (Same as Afro-Ethnic Studies 101)

#### 105 Introduction to Asian American Studies (3)

Interdisciplinary exploration of the experiences of several Asian American groups.

Addresses questions of cultural assimilation and cultural persistence, family and gender roles, and literary and popular culture representations.

# 201 History of Asian Americans (3) (Same as History 201)

# 220 Vietnamese Communities in the U.S. (3)

Prerequisite: Completion of category III C. 2 of General Education. An historical and cultural overview of Vietnamese communities in the U.S., especially Orange county. It covers the vital role of voluntary agencies, mutual assistance associations, and religious centers. Vietnamese business, entertainment, family, education and hobbies will also be examined.

#### 308 Asian American Women (3)

Prerequisite: junior or senior standing. An interdisciplinary examination of Asian and Pacific Islander American women's experience. It compares and contrasts the experience of women from various parts of Asia and explores the social, cultural and political issues they face both in the U.S. and abroad. (Same as Women's Studies 308)

# 320 Asian American Creative Expression (3)

Prerequisite: Completion of Categories III.
B. 1 and 2 of General Education. This course explores Asian American life as portrayed through novels, short stories, plays, poetry, film, music, painting, dance, and other expressive forms. It examines both historical and contemporary works by a variety of Asian and Pacific Americans.

#### 411 World War II Japanese American Evaluation (3)

(Same as History 411)

#### 496 Student-to-Student Tutorials (1-3)

Consult "Student-to-Student Tutorials" in this catalog for more complete course description.

#### 499 Independent Study (1-3)

Supervised research and/or service learning projects in Asian American Studies to be taken with consent of instructor and program coordinator. May be repeated for credit.

# asian studies

#### PROGRAM COORDINATOR:

William W. Haddad (History)

#### **PROGRAM OFFICE**

McCarthy Hall 103

#### **PROGRAM OFFERED**

Minor in Asian Studies

#### **PROGRAM COUNCIL**

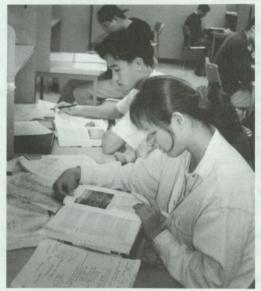
Ian Bailey (Kinesiology and Health Promotion), Don Castro (Humanities and Social Sciences), K. Chu (Economics), Craig Ihara (Philosophy), Irene Lange (Marketing), Keiji Matsumoto (Foreign Languages), Vera Simone (Political Science), Preston Stedman (Music), Barbara Weightman (Geography), Rich Wiseman (Speech Communication) and Heping Zhao (English).

#### INTRODUCTION

Asia, more than any other region in the world, has become the focus of extensive international business, political relationships, and cultural exchange. Millions of people of Asian descent have become an integral part of American society. Indeed, California, more than any other place in the United States, is the residence of immigrants from throughout Asia. In order to keep pace with current developments in this extremely important part of the world, students are encour-

aged to take advantage of the opportunity to minor in Asian Studies.

The faculty for the Asian Studies Minor is drawn from several departments. What they have in common is that they teach and do research on Asia. The interdisciplinary nature of the Minor allows students the unique opportunity to learn about Asia from broad and differing perspectives.



#### **MINOR IN ASIAN STUDIES**

The minor consists of 21 units: 6 units chosen from the listed core courses and 15 units of electives chosen in consultation with an advisor as outlined below.

#### Core Courses (6 units)

Anthro 340 Peoples of Asia (3)

OR Anthro 347 Peoples of the Pacific (3)

Geography 340 Asia (3)

#### Electives (15 units)

One course each from three of the four following categories, plus 6 units of advisor-approved electives:

#### Language, Culture, Geography, and Human Behavior

Anthro 340 Peoples of Asia (3)\*

Anthro 347 Peoples of the Pacific (3)\*

Any Japanese Language Course

Any Chinese Language Course

Any Vietnamese Language Course

Geography 330 California Landscapes (3)

Geography 340 Asia (3)

Kinesiology 151 Aikido (1)

Kinesiology 152 Karate (1)

Speech Comm 320 Intercultural Communication (3)

<sup>\*</sup>One of these is applicable as an elective if not chosen as a core course.

#### History and Politics

History 360 Modern Asia: Nationalism & Revolutionary Change (3)

History 462A History of China (3)

History 462B History of China (3)

History 462C China Since 1949 (3)

History 463A History of Japan (3)

History 463B History of Japan (3)

History 464A History of Southeast Asia 1850-1945 (3)

History 464B History of Contemporary Southeast Asia (3)

History 465A History of India (3)

History 465B History of India (3)

History 490T Senior Research Seminar (3) (Where course topic focuses on area of Asia).

Poli Sci 433 Politics of the Asian Pacific (3)

Poli Sci 434 China and Japan: Friends or Foes? (3)

Poli Sci 451T Problems in International Politics (3)

Poli Sci 452T Foreign Policy of a Selected Country or Group of Countries (3)

Poli Sci 455 International Relations of South Asia (3)

Poli Sci 457 Politics of International Economics (3)

Poli Sci 476 International Law (3)

#### Arts and Humanities

(including Art, Literature, Philosophy and Religious Studies)

Music 352 Symphonic Music in Western & Eastern Cultures (3)

Philosophy 350 Asian Philosophy (3)

Philosophy 352 Philosophy of Asian Martial Arts (3)

Religious Studies 270T Introduction to the Asian Religions (3)

#### International Business and Economics

Economics 332 Economies of the Pacific Rim (3)

Economics 333 Economic Development: Analysis & Case Studies (3)

Economics 335 The International Economy (3)

Economics 411 International Trade (3)

Finance 370 International Business Finance (3)

Marketing 445 Multinational Marketing Strategies (3)

# biological science

#### DEPARTMENT CHAIR

C. Eugene Jones

#### **DIRECTOR, GRADUATE PROGRAM**

Michael Horn

#### **DEPARTMENT OFFICE**

McCarthy Hall 282

#### **PROGRAMS OFFERED**

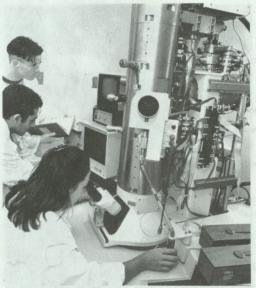
Bachelor of Science in Biological Science Minor in Biotechnology Master of Arts in Biology Subject Matter Preparation Program for Single Subject Teaching in Science

#### **FACULTY**

Sandra Banack, Jack Burk, Amybeth
Cohen, Kathryn A. Dickson, David Drath,
Doug Eernisse, David Fromson, Kenneth
Goodhue-McWilliams, Michael Horn, C.
Eugene Jones, Judy Kandel, Robert Koch,
Rodrigo Lois, Lon McClanahan, Steven
Murray, Joyce Ono, William Presch, Marvin
Rosenberg, Roger Seapy, James Smith, Donald
Sutton, Heidi Theisen, Barry Thomas,
Marcelo Tolmasky, Joel Weintraub.

#### INTRODUCTION

Biology is the study of life, its basis and processes. The discipline is dynamic and expanding rapidly. In one direction, the study of molecular origins is the basis for understanding how cells are constructed and how they function including their metabolism, growth, development and reproduction. In another direction, the study of organisms is the basis for the understanding of how populations of organisms interact among themselves and with their environment. This



includes a consideration of the distribution and abundance of organisms, energy flow among organisms and the cycling of inorganic and organic resources.

The major in biological science is designed for students who (1) desire to enter graduate and professional schools; (2) wish to prepare for secondary school teaching; or (3) seek careers in industry and state or federal agencies. The purposes of these students can best be served by building their curricula on a core of courses fundamental to the logiciance of biology.

The curriculum beyond the basic core experience can best be satisfied through individual advis-

ing rather than through prescribed programs. Students will be assigned a faculty adviser when they enter the University. Students are required to meet with their designated adviser, at least once a year, in order to develop an appropriate program of study. The Department of Biological Science has established curricula in subdisciplines of biology which include: botany, cell and molecular biology, ecology, genetics, marine biology, medical biology, microbiology and zoology. After discussion with their advisers, students will elect those upper-division courses which will satisfy their individual interests and professional goals.

#### Special Programs

In addition to the usual course offerings, the Department of Biological Science participates in the Institute for Molecular Biology and two consortial programs with other California State University campuses. These are the Ocean Studies Institute (through the Southern California Marine Institute) and the California Desert Studies Consortium at Soda Springs, which are described in this catalog under "Institutes/Study Centers."

#### Preprofessional Information

The Health Professions Office provides advising services to students wishing to enter the health professions. The services include counseling students to plan their academic programs, providing students with the opportunity to volunteer for work opportunities in the area of their interest, and providing assistance in the preparation of applications, including interviewing techniques.

#### Credential Information

To qualify for the Subject Matter Preparation Program for the Single Subject Teaching Credential, students should seek a transcript evaluation from the Credential Preparation Center, Education Classroom 207, and then see the Biology Department credential adviser for informa-

tion on the subject matter preparation program for science. Specific requirements for the program were not available as of catalog press-time.

#### Dr. and Mrs. Donald B. Bright Environmental Scholarship

To preserve the memory of Dr. Donald B. Bright, one or more scholarships per year are awarded to deserving undergraduate students of biology.

#### Judith A. Presch Desert Studies Scholarship

To preserve the memory of Judith A. Presch, two scholarships per year are awarded (one undergraduate and one graduate student) for work in the Mojave Desert by the Desert Studies Consortium.

#### Jerome Wilson Scholarship

To preserve the memory of Dr. Jerome Wilson, two scholarships per year are awarded to deserving undergraduate or graduate students of biology.

#### Coppel Graduate Science Award

For biology graduate students for their unrestricted use. Established by Lynn and Claude Coppel.

# Rachel Carson Scholarship in Conservation Biology

To preserve the memory of Rachel Carson, a scholarship was created to encourage biology majors to pursue a career in Conservation Biology.

#### Recommended Program in General Education

Because of high unit requirements for the B.S. in Biological Science, students are urged to consult with their adviser to design their general education program.

# Upper-Division Baccalaureate Writing Requirement

In addition to passing the English Writing Proficiency exam, students must pass English 301 Advanced College Writing or English 360 Scientific and Technical Writing with a grade of C or better.

#### Internships

Biology 495 Biological Internship provides students with the opportunity to participate in a practical work experience which integrates their interests with classroom studies.

#### BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCE

A total of 124 units, including general education, 43 units in biology courses (27 units in the core and 16 units of upper-division electives), the upper-division writing requirement and supporting courses in physical sciences and mathematics are required for completion of the B.S. in Biological Science. The supporting courses must include one year of general college chemistry including qualitative analysis with laboratory, one year of organic chemistry with laboratory, one semester of college calculus, and one year of college physics with laboratory, a total of 30 units. Those students seeking careers in medicine should take a semester of calculus, quantitative chemistry and laboratory, and biochemistry. Those students who wish to earn a doctoral degree should consider, in addition, a modern foreign language or advanced courses in computational sciences.

To qualify for a baccalaureate degree in Biological Science, students must have a 2.0 overall average in all required supporting courses. No credit toward the major will be allowed for biology courses in which a grade of D or F is obtained. Courses taken under the Credit/No Credit grade option may not be applied towards the major.

Upper-division students will be permitted to enroll in Biology 480 Advanced Topics in Biology, Biology 495 Biological Internship, and Biology 499L Independent Laboratory Study, for a total of three units. All full-time upper-division students are expected to attend the departmental seminars.

NOTE: Students must complete Biology 131, 241, and 261 with a passing grade (C or better) before they take any other biology courses.

#### Core Requirements for the Major (27 units)

Biol 131 Principles of Biology (3)

Biol 241 Principles of Botany (4)

Biol 261 Principles of Zoology (4)

Biol 302 General Microbiology (4)

Biol 312 Genetics and Molecular Biology (3)

Biol 315 Cell and Developmental Biology (3)

Biol 316 Principles of Ecology (4)

Biol 320L Cell and Molecular Biology Lab (2)

#### Electives (16 units)

Upper-division courses, must include four units (12 hours) of laboratory and/or fieldwork.

# Supporting Course Requirements for the Major (30 units)

Chem 120A,B General Chemistry (10)

Chem 301A,B Organic Chemistry (6)

Chem 302 Organic Chemistry Lab (2)

Physics 211, 211L Elementary Physics & Lab (4)

Physics 212, 212L Elementary Physics & Lab (4)

Math 130 A Short Course in Calculus (4)

OR Math 150A Analytic Geometry and Calculus (4).

OR Math 337 Introduction to Experimental Design and Statistics in the Laboratory Sciences (3)

# BIOLOGICAL SCIENCE/PRE-MBA PROGRAM

A student may combine a B.S. in Biological Science with a minor in Business Administration to qualify to enroll in and complete an MBA degree at CSUF in one additional year (33 units), provided all entrance requirements for the MBA program have been met. See your department adviser for details.

#### **MINOR IN BIOTECHNOLOGY**

The biotechnology minor is appropriate for students majoring in biological science or biochemistry and interested in gaining employment in nearly any area of the growing medical and agricultural biotechnology industries, working in academic research laboratories, or pursuing postgraduate degrees in basic molecular biology or biochemistry.

The biotechnology minor requires a minimum of 31 acceptable units of chemistry and biology as shown below. These courses must be completed with a minimal overall grade-point average of 2.0 and include 12 units unique to the minor that are not used to meet requirements for the biological science or chemistry major.

#### Required Core Courses (28 units)

Biol 131 Principles of Biology (3)

Biol 312 Genetics and Molecular Biology (3)

Chem 301A,B Organic Chemistry (6)

Chem 302 Organic Chemistry Lab (2)

Biol 320L Cell and Molecular Biology Lab (2)

OR Chem 422A Biochemistry Lab (2)

Biol 412 Principles of Gene Manipulation (3) Biol/Chem 472A,B Advances in Biotechnology Lab (6)

Chem/Biol 477 Advances in Biotechnology (3)

#### Supporting Courses (3-4 units)

Students must complete one of the following courses:

Biol 413 Advances in Molecular Genetics (3)

Biol 424 Immunology (4)

Chem 421A or 423A Biochemistry (1st semester) (3)

Chem 421B or 423B Biochemistry (2nd semester) (3)

#### **EMPHASIS IN BIOTECHNOLOGY**

The emphasis is appropriate for students majoring in Biology and interested in gaining employment in nearly any area of the growing medical and agricultural biotechnology industries, working in academic research laboratories, or pursuing postgraduate degrees in Molecular Biology or Biochemistry.

Required Courses (12 units)

Biol 472A,B Advances in Biotech Lab (6)

Biol 477 Advances in Biotechnology (3)

OR Biol 413 Advances in Molecular Genetics (3)

Biol 412 Principles of Gene Manipulation (3)

#### **MASTER OF ARTS IN BIOLOGY**

The program is based on the assumption that modern science necessitates broad preparation through the master's level of training. In design, it offers sufficient breadth and depth to strengthen the student's academic understanding and improve competence for (a) advanced graduate work toward the doctoral degree in biology; (b) teaching at all levels - elementary, secondary and community college; (c) participating in research programs; (d) participating in various field service and conservation positions with both the state and national governments; (e) entering the field of public health; or (f) technological work in the health sciences.

#### Admission Requirements

An applicant must meet the university requirements for admission, which include a baccalaureate from an accredited institution, and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on Graduate Admissions for complete statement and pro-

cedures). In addition to the university requirements for admission, acceptance into this program is contingent upon the following: (1) a B.A. in Biological Science or related area at Cal State Fullerton or other accredited institution with a grade-point average of 3.0 in biology courses and a GPA of 2.5 in the related courses in mathematics, chemistry and physics; (2) acceptance by a thesis adviser; and (3) satisfactory scores on one of the following: (a) Graduate Record Examination Aptitude Test and the Advanced Test in Biology; (b) Medical College Admission Test; (c) Dental Admission Test; (4) completion of departmental application; and (5) submission of two letters of recommendation.

Students must meet the Graduate Level Writing Requirement which can be found in this catalog under "Graduate Regulations." Students will meet this requirement by taking Biology 500A,B Professional Aspects of Biology.

Students with limited subject or grade deficiencies may be considered for conditional acceptance to the program. Conditionally classified graduate standing may be removed upon completion of nine units of adviser and graduate committee approved postgraduate studies in biology, mathematics, chemistry or physics, with grades of B or better.

#### Classified Standing

Students should achieve classified graduate standing as soon as they are eligible, since no more than nine units of graduate work taken before classification can be included on the study plan (see below) for the degree. A student who meets the admission requirements may apply for classified standing, which requires the development of a study plan approved by the adviser, thesis committee, Director of the departmental graduate program and Associate Vice President, Academic Programs.

#### Advancement to Candidacy

Advancement to candidacy is attained by requesting a graduation check and receiving subsequent approval of the graduate program adviser on The Grad Check Review Form, mailed by the Graduate Studies Office.

#### Study Plan

A study plan includes a minimum of 30 units of adviser-approved graduate work; at least one-half of the total units must be at the 500-level. All study plans must include: Biology 599 Independent Graduate Research, Biology 500A,B Professional Aspects of

Biology, and Biology 598 Thesis, and at least one graduate seminar. Six units must be outside the principal area. A thesis covering a research problem is required. The thesis topic must be approved by the adviser and committee. A final oral examination on the thesis research is also required.

Supervising the work of graduate students requires the personal attention of advisers. To insure that advisers are available for new graduate students a graduate student is expected to complete the requirements for graduation within three years after classification.

Students who are graduate assistants should complete the classification step either prior to appointment or during their first semester of appointment. They must become classified before being reappointed.

For more detailed information or advisement, students should contact the Biological Science Department, or the Graduate Program Director of the Biological Science Department.

#### **BIOLOGICAL SCIENCE COURSES**

Unless otherwise designated, prerequisites may be waived by the instructor of the course if the instructor is satisfied that the student is qualified to undertake the course.

#### 101 Elements of Biology (3)

Underlying principles governing life forms, processes and interactions. Elements of biology and reasoning skills for understanding scientific issues on personal, societal, and global levels. For the non-science major. No credit toward biological science major. (3 hours lecture)

#### 101H Elements of Biology (Honors) (3)

Corequisite: Biology 101LH (Honors) must be taken concurrently with this course. Students must meet honors qualifications. Living organisms and characteristics of the natural environment. Emphasis on the scientific reasoning leading to our current understanding of living systems. (3 hours lecture)

#### 101L Elements of Biology Laboratory (1)

Prerequisite or corequisite: Biology 101. Laboratory experiments demonstrating the principles presented in the lecture course. Scientific inquiry, cell structure and function, physiology, genetics, biodiversity, evolution and ecology. For the non-science major. (3 hours laboratory or fieldwork; weekend field trips may be required).

## 101LH Elements of Biology Laboratory (Honors) (1)

Corequisite: Biology 101H (Honors) must be taken concurrently with this course. Students must meet honors qualifications. Laboratory experiments and demonstrations which provide insight to scientific reasoning and the basis of our current understanding of living systems. (3 hours laboratory or fieldwork; field trips may be required)

#### 131 Principles of Biology (3)

Fundamental concepts and principles of biology: Nature of chemical bonds, biological molecules, cell structure and function, metabolism, photosynthesis, mitosis and meiosis, transmission genetics, gene structure and function, development, ecological interactions and associations, evolution. For science majors only. (3 hours lecture)

#### 131W Introduction to Biology Seminar (1)

Corequisite: Biology 131 and consent of instructor. Principles of biology and science learning strategies explored in a small group seminar specifically applied to the biological sciences. Credit/No Credit only.

#### 241 Principles of Botany (4)

Prerequisite: Biology 131 or equivalent. The plant kingdom. The dynamic nature of plants as revealed by their structure, function, classification, phylogeny, physiology and ecology. (2 hours lecture; 6 hours laboratory or fieldwork; weekend field trips may be required). (CAN BIOL 6)

#### 261 Principles of Zoology (4)

Prerequisite: Biology 131 or equivalent. The animal kingdom. The dynamic nature of representative invertebrate and vertebrate organisms; their structure, function, phylogeny, classification, physiology, behavior, ecology and evolution. (2 hours lecture; 6 hours laboratory or fieldwork; weekend field trips may be required). (CAN BIOL 4)

#### 299L Directed Laboratory Study (1-2)

Prerequisites: Biology 131 and consent of instructor. Research in biology under the supervision of a biology faculty member. Intended for students (especially lower division) who may not have completed sufficient course work to allow them to work independently, but who are eager for laboratory research experience. May be repeated for university credit, but units do not count toward major. (3 hours laboratory per unit).

#### 300 Environmental Biology (3)

Prerequisite: Biology 101 or equivalent.
Biological consequences of human intervention in ecosystems: Endangered and threatened species, pollution impact on organisms, pest control, population dynamics, genetic engineering of agricultural species, management of natural areas and urban ecosystem dynamics. No credit toward biological science major. (3 hours lecture)

#### 302 General Microbiology (4)

Prerequisites: Completion of lower division biology core courses and one year of college chemistry. Introduction to structure and function of bacteria and viruses including beneficial and detrimental activities and interactions with other organisms. Laboratory provides experience with microscopic, cultural, physiological and genetic study of microbes. (2 hours lecture; 6 hours laboratory).

#### 305 Human Heredity and Development (3)

Prerequisite: Biology 101 or equivalent.
Principles of human heredity and embryology relating to human development.

Mendelian genetics, single gene effects, genetics, prenatal diagnosis, and human embryology. No credit toward biological science major. (3 hours lecture)

#### 306 Biology of Aging (3)

Prerequisite: Biology 101 or equivalent. Biological changes in cells, tissues, organs and the whole body associated with aging. Theories of aging will be discussed with primary emphasis on mammals. No credit toward biological science major. (3 hours lecture)

#### 307 Computer Applications in Biology (3)

Prerequisite: Biology 131. Introduces biology students to the efficient use and application of computers in data organization, management and assimilation with respect to the natural and health sciences. (1 hour discussion and 6 hours laboratory).

#### 310 Human Physiology (3)

Prerequisite: Biology 101 or equivalent. Human physiological systems and their relationship to human function for non-biology majors and students in physical education and health sciences. No credit for biological science major. (3 hours lecture)

#### 311 Nutrition and Disease (3)

(Same as Chemistry 311)

#### 312 Genetics and Molecular Biology (3)

Prerequisite: Biology 302 or equivalent.
Prerequisite or Corequisite: Chem 301A.
Required of all Biology Majors. The general principles and molecular developments in the study of heredity. The course is comprehensive and includes transmission genetics, cytogenetics, elements of eukaryotic, bacterial, fungal, and viral genetics, DNA structure and function, gene expression and protein synthesis, recombinant DNA. (3 hours lecture)

#### 315 Cell and Developmental Biology (3)

Prerequisites: Biology 302 and Chemistry 301A or equivalents. Cell structure and function including an analysis of subcellular organelles and systems. An understanding of how research elucidates structure and function of cells. Study of cellular mechanisms operative during embryogenesis. (3 hours lecture)

#### 316 Principles of Ecology (4)

Prerequisites: Biology 241 and 261. Introduction to physiological, population, community and ecosystem ecology. (3 hours lecture, 3 hours lab; weekend field trips may be required.)

#### 317 Field Marine Biology (4)

Prerequisites: Biology 241 and 261 or equivalents. Field biology and natural history of local marine plants and animals. Identi-fication of common species and factors determining these distributions and abundance in marine habitats. Effects of human activities on marine organisms. (2 hours lecture, 6 hours lab or fieldwork; weekend field trips may be required.)

#### 318 Wildlife Conservation (3)

Prerequisite: Biology 101 or equivalent. Causes and consequences of extinctions of plant and animal species. Endangered species, threatened ecosystems, design and management of nature reserves, captive species propagation, species reintroductions, restoration ecology, organized conservation efforts. No credit toward biological science major.

#### 319 Marine Biology (3)

Prerequisite: Biology 101 or equivalent. Survey of marine plants and animals in their habitats. No credit toward biological science major. (3 hours lecture)

# 320L Cell and Molecular Biology Laboratory (2)

Prerequisite: Biology 312. Corequisite: Biology 315. Laboratory exercises in cell and modern molecular biology including recombinant DNA technologies to give the students experience in the analysis and characterization of cellular components and processes. (6 hours laboratory).

#### 323 Biology of Sexually Transmitted Diseases (STD) (2)

Prerequisite: one semester of college level biology. The symptoms, diagnosis, treatment, and control of a number of sexually transmitted diseases including gonorrhea, syphillis, AIDS, herpes, chancroid and venereal warts. (2 hours lecture)

#### 330 Ecology of American Indians (3)

Prerequisite: Biology 101 or equivalent. Interrelationships of native peoples of the Americas with the local flora and fauna and the natural environment. Roles of American Indians in predator-prey interactions, ecological hierarchy, nutrient cycling, successional change and resource management. No credit toward Biological Science major. (3 hours lecture)

#### 340 Field Botany (3)

Prerequisite: Biology 241 or equivalent. The native flora of Southern California. Identification, natural history and factors which determine the distribution of species. (1 hour lecture, 6 hours laboratory or fieldwork; weekend field trips are required)

#### 344 Survey of the Land Plants (4)

Prerequisite: Biology 241 or equivalent. A survey of the anatomical and morphological characteristics of the land plants as they relate to the evolutionary development and ecological strategies of these plants. (2 hours lecture, 6 hours laboratory)

#### 352 Plants and Life (3)

Prerequisite: one semester of college biology. Humans' dependence upon and economic interest in plants throughout the world. The domestication of plants and the origin of agriculture. (3 hours lecture)

#### 360 Biology of Human Sexuality (2)

Prerequisite: Biology 101 or equivalent. The biology of the human reproductive system. Sexual differentiation, anatomy and physiology, sexual behaviors, procreation, contraception and sexually transmitted disease. No credit toward biological science major. (3 hours lecture per week for 10 weeks)

#### 361 Human Anatomy (4)

Prerequisites: Biology 241 and 261. A systems approach to the structure and function of the human body. For biology majors and related health sciences; students with zoology emphasis should take Biology 463. (2 hours lecture, 6 hours laboratory).

#### 362 Mammalian Physiology (4)

Prerequisites: Biology 241 and 261 and one year of college chemistry; Biology 315 recommended. The fundamental mechanisms of mammalian physiology. For biology majors and related health sciences. Students with zoology emphasis should take Biology 468. (2 hours lecture, 6 hours laboratory).

#### 401 Biogeography (3)

Prerequisite: Biology 316 or equivalent. Evolutionary patterns and mechanisms of distribution of plants and animals in the major habitats of the world. Current concepts and theories. (3 hours lecture)

# 402 Computer Lab in Molecular Systematics (3)

Prerequisite: Biology 241 and 261. To gain practical and theoretical experience with software-based methods in molecular systematics, with emphasis on Internet resources for molecular biologists, acquisition of gene protein sequences, multiple sequence alignment, PCR primer design, phylogenetic analysis, and controversies in the field.

#### 403 Biosystematics (3)

Prerequisites: Biology 241 and 261. A study of the principles and techniques of biological systematics, focusing on evolutionary mechanisms, phylogenetic relationships, organismic diversity and principles of classification. (3 hours lecture; weekend field trips may be required)

#### 404 Evolution (3)

Prerequisites: Biology 241 and 261. The history of evolutionary thought; origin of universe, earth and life; geological and paleontological history of the earth; evidences derived from comparative anatomy, embryology, genetics, zoogeography; mechanisms of evolution. (3 hours lecture)

#### 405 Developmental Biology (3)

Prerequisites: Biology 312, 315, and 320L. Molecular and cellular processes in the development of organisms such as oogenesis, fertilization, cytokinesis-morphogenetic movements, and nucleocytoplasmic interactions. (3 hours lecture)

#### 406 Biometry (4)

Prerequisites: Mathematics 337 or equivalent; upper-division standing in biological sciences. Experimental design, interpretation, and application of statistics to biological problems. (3 hours lecture, 3 hours laboratory)

#### 407 Seminar in Human Sexuality (3)

Prerequisites: Biology 241 and 261. The biological-physiological bases of human sexuality as they relate to human sexual interaction and social change. (3 hours lecture/discussion)

#### 412 Principles of Gene Manipulation (3)

Prerequisites: Biology 312, 315, 320L and Chemistry 301AB. Current approaches to and applications of recombinant DNA technology. Principles behind construction of recombinant molecules including vectors and enzymes, introduction into organisms, selection, expression of cloned genes, and impact of research on society. (3 hours lecture)

#### 413 Advances in Molecular Genetics (3)

Prerequisites: Biology 312, 315, 320L and Chemistry 301A,B. The function of genetic material and informational macromolecules. Extensive analysis of recent scientific articles in molecular genetics illustrating mutagenesis, protein synthesis, protein structure and function, biogenesis of RNA molecules, regulation of gene expression and their relationship to important biological processes. (3 hours lecture)

#### 415 Introduction to Electron Microscopy (4)

Prerequisites: Biology 315 and 320L.

Standard and specialized techniques in EM study of biological tissues; operation of scanning and transmission electron microscope, EM darkroom procedures; and interpretation, analysis and presentation of electron micrographs. (2 hours lecture, 6 hours laboratory)

#### 417 Advances in Cell Biology (3)

Prerequisite: Biology 315. Current topics in the cell biology of cell motility, cell multiplication and regulation, membranes and permeability, cell signaling, cell-to-cell contact and extracellular matrix, and cell differentiation using current journal articles. Biology 418L offers relevant laboratory experiments.

#### 418L Advances in Cell Biology Lab (2)

Prerequisites: Biology 315, 320L.

Corequisites: Biology 417 or 470. Use of current techniques like fluorescence microscopy, immunolabeling, ion-sensitive dye ratiometry, image processing, 2-D and 3-D reconstruction, neuronal tracking, and patch clamping to study problems in cell biology, cellular developmental biology and cellular neurobiology.

#### 419 Marine Ecology (3)

Prerequisites: Biology 316 or equivalent. Ecology of planktonic, nektonic and benthic organisms; their communities and environments. (3 hours lecture)

#### 419L Marine Ecology Laboratory (1)

Corequisite: Biology 419. Field and laboratory studies of planktonic, nektonic and benthic communities. (3 hours laboratory or field work; weekend field trips may be required).

#### 424 Immunology (4)

Prerequisites: Biology 302, 315 and 320L; concurrent enrollment in bio-chemistry is strongly advised. The molecular, cellular and organismic nature of the immune process. Inflammation, phagocytosis, antigens, immuno-globulins and cell-mediated immune phenomena. Modern immunology techniques. (2 hours lecture, 6 hours laboratory-discussion)

#### 426 Virology (3)

Prerequisites: Biology 302, 312 and 315. Viral structure and replication and host-virus interactions in the viral replication process, with emphasis on animal and bacterial virus systems. (3 hours lecture)

#### 428 Biology of Cancer (3)

Prerequisites: Biology 312, 315 and 320L. Biology 424 is recommended. The cancer problem as a dilemma of biology. Clinical and epidemiological aspects. Current research. (3 hours lecture)

#### 432 Microbes and Food Production (2)

Prerequisite: Biology 302 or equivalent. The ancient and modern processes of making cheese from milk, wines from fruits, breads and beers from grains. The microbes involved in transforming the unstable raw materials into more desirable products. (1 hour lecture, 3 hours laboratory or fieldwork; weekend field trips may be required).

#### 433 Microbial Problems in Foods (2)

Prerequisite: Biology 302 or equivalent. Food spoilage, food intoxication and foodborne diseases caused by microbes in food processing. The microbes involved, sources of contamination, and methods used in detection and prevention of problems. (1 hour lecture, 3 hours laboratory or fieldwork; weekend field trips may be required). Instructional fee rquired.

#### 434 Industrial Microbiology and Applied Biotechnology (4)

Prerequisites: Biology 302, 312 and 315. Current and developing applications of microbiology within industry. Culture enhancement technology, contamination control methodology and government regulations in the production of pharmaceuticals, medical devices, energy, and in agricultural and environmental control. (2 hours lecture, 6 hours laboratory)

#### 438 Public Health Microbiology (4)

Prerequisite: Biology 302. The control and epidemiology of infectious diseases of public health importance, water and sewage microbiology. Control of current problems. (2 hours lecture, 6 hours laboratory)

#### 441 Plant Taxonomy (4)

Prerequisites: Biology 241 and 261. Classification and evolution of vascular plants; emphasis on the flowering plants. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required).

#### 442 Pollination Biology (3)

Prerequisites: Biology 316 or equivalent. Pollination in the plant kingdom. Floral cues, pollination syndromes, pollinator behavior, chemical and physical characteristics of pollination, energetics, gene flow, phenology, and ecological aspects of pollination. (2 hours lecture, 3 hours laboratory or fieldwork)

#### 443 Plant Ecology (4)

Prerequisite: Biology 316 or equivalent. Community and population ecology of terrestrial plants. Environmental factors and plant distribution with emphasis on California vegetation. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required).

#### 444 Plant Physiology (4)

Prerequisites: Biology 241 and 261 and one semester of organic chemistry. Fundamental mechanisms of plant physiology with primary emphasis on whole plant physiology and physiological ecology. (2 hours lecture, 6 hours laboratory; weekend field trips may be required)

#### 446 Marine Phycology (4)

Prerequisites: Biology 241 and 261. Biological aspects of marine algae; comparative development, morphology, taxonomy, physiology, and ecology. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required).

#### 450 Conservation Biology (3)

Prerequisite: Biology 316 or equivalent or consent of instructor. Current topics involving theory, concepts and techniques in the conservation of biological diversity. (3 hours lecture)

#### 461 Invertebrate Zoology (4)

Prerequisites: Biology 241 and 261. Evolution, classification, phylogeny, morphological and physiological adaptations of invertebrate animals. Dissection, identification and observation of extant animals. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

#### 464 Human Embryology (4)

Prerequisite: Biology 261. Human development from gametogenesis through organogenesis. Frog, chick and pig serial sections; histogenesis and organogenesis. (2 hours lecture, 6 hours laboratory)

#### 465 Animal Ecology (4)

Prerequisites: Biology 241 and 261, Biology 316 recommended. The factors that affect the distribution and abundance of animals. Field techniques, statistical applications and theoretical approaches. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

#### 466 Animal Behavior (3)

Prerequisites: Biology 241 and 261. The current problems in animal behavior; sensory capacities, orientation, innate and learned patterns, and social behavior of invertebrates and vertebrates. (3 hours lecture)

#### 467 Entomology (4)

Prerequisites: Biology 241 and 261.

Anatomy, physiology, evolution and biology of insects and other terrestrial arthropods.

Dissection, collection, identification and observation of living arthropods. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required.)

#### 468 Comparative Animal Physiology (4)

Prerequisites: Biology 241 and 261 and Chemistry 120A, B; Biology 315, 316 and 320L recommended. Comparative study of physiological and biochemical processes among representative animals. (2 hours lecture, 6 hours laboratory, weekend field trips may be required).

#### 470 Cellular Neurobiology (4)

Prerequisites: Biology 315, 320L and 362. Processes of cell communication, particularly in nervous systems. Molecular biology of neuron, model sensory and motor systems, and cellular basis for behavior. Laboratory experience in electrophysical, anatomical, and pharmacological techniques of nerve cell study. (2 hours lecture, 6 hours laboratory)

#### 472A Advances in Biotechnology Laboratory (3)

(Same as Chemistry 472A)

#### 472B Advances in Biotechnology Laboratory (3)

Prerequisite: Biology/Chemistry 472A. Explores biotechnology techniques for gene product analysis: DNA sequencing site-directed mutagenesis, predicting amino acid changes, protein overproduction, enzyme function assays, protein identification/preparation by gel techniques, immunoblotting. (1 hour discussion, 6 hours laboratory). (Same as Chemistry 427B)

#### 474 Natural History of the Vertebrates (4)

Prerequisites: Biology 241 and 261.

Natural history of the vertebrates.

Observation, identification, behavior, ecology and distribution of the vertebrates. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

#### 475 Ichthyology (4)

Prerequisites: Biology 241 and 261. The systematics, evolution, morphology, physiology, ecology and behavior of fishes. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required).

#### 476 Herpetology (4)

Prerequisites: Biology 241 and 261. The biology, structure, physiology, ecology, distribution, identification, collection, evolution and behavior of amphibians and reptiles. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required).

# 477 Advances in Biotechnology (3) (Same as Chemistry 477)

#### 478 Mammology (4)

Prerequisites: Biology 241, 261, and 316 or equivalent. The systematics, evolution, morphology, physiology, ecology and behavior of mammals. (2 hours lecture, 6 hours laboratory or fieldwork, plus two weekend field trips)

#### 479 Ornithology (4)

Prerequisites: Biology 241, 261 and 316. Anatomy, physiology, evolution, behavior, and ecology of birds. Laboratory and fieldwork in identification, anatomy, observational techniques and community composition. (2 hours lecture, 6 hours lab or fieldwork per week; one or more weekend field trips)

#### 480 Advanced Topics in Undergraduate Biology (1-3)

Prerequisites: upper-division students majoring in biological science and consent of instructor. Current topics, updating of concepts, recent advances and unification of the principles of biology. May be repeated for credit.

#### 480M MARC Proseminar (1)

Prerequisite: Selection as MARC Fellow. Intended to increase the contact of MARC Fellows with minority scientists of national repute. Five speakers will present seminars. Fellows will read and discuss relevant primary literature, attend the seminars, and meet with speakers before and after the seminars. May be repeated for credit. (Same as Chemistry 480M)

#### 495 Biological Internship (3)

Prerequisites: Successful completion of 90 units, including all core requirements, and consent of instructor. Biological, ecological, and health-related fields. Ninety (90) hours of practical experience in student's chosen field of interest with public or private agencies or businesses. May not be repeated for credit. (1 hour lecture/ discussion, laboratory work experience)

#### 496 Biology Tutorials (1-3)

Prerequisites: Junior or senior standing in biology and consent of instructor. Supervised experience in biological science teaching through tutoring or assisting in a laboratory or field class. No credit toward biological science major.

#### 498 Senior Thesis (2)

Prerequisite: six units of Biology 499L, Independent Laboratory Research or Chemistry 495 Senior Research (two units of which may be taken concurrently) and establishment of a three-member thesis committee at least one semester prior to enrollment of this course. To be taken during semester of expected graduation. Required of all MARC Fellows. Requires preparation, presentation, and defense of a formal thesis. Topic and general experimental design shall have all been approved by the thesis committee. Thesis shall be formatted in accordance with a journal in appropriate field and presented in a timely fashion. (Same as Chemistry 498)

#### 499L Independent Laboratory Study (1-3)

Junior or senior standing with consent of instructor with whom the student wishes to pursue independent laboratory study in biology. May be repeated for credit.

#### 500A Professional Aspects of Biology (1)

Prerequisites: Graduate standing and concurrent enrollment in Biology 500B.

Discussions concerning research protocol, scientific methodology and communication techniques. Ethics and social responsibilities of professional biologists. (1 hour discussion)

#### 500B Professional Aspects of Biology (1)

Prerequisites: Graduate standing and concurrent enrollment in Biology 500A.

Individualized project work and experiences in scientific writing. Required of all students upon admission to the graduate program. (3 hours project work)

#### 500C Professional Aspects of Biology: Teaching Effectiveness (2)

Prerequisites/corequisites: Graduate standing; must have received a Graduate Teaching Associate appointment. This course is designed to assist graduate students in becoming effective classroom teachers and understanding the scholarship of teaching in higher education. Graduate Teaching Associates will learn pedagogy and a variety of teaching alternatives while concurrently teaching in a laboratory/discussion setting.

#### 505T Seminar in Molecular, Cellular, Immunological and Physiological Biology (3)

Prerequisite: graduate standing. Selected advanced topics. May be repeated for credit.

#### 517T Seminar in Ecological and Organismic Biology (3)

Prerequisite: graduate standing. Selected advanced topics. May be repeated for credit.

#### 520T Seminar in Microbiology (3)

Prerequisite: graduate standing. Selected advanced topics. May be repeated for credit.

#### 580 Advanced Topics in Graduate Biology (1-3)

Prerequisites: graduate standing in biology and consent of instructor. Current research topics, experimental design and problem solving in biological systems. May be repeated for credit.

#### 598 Thesis (1-3)

May be repeated for a maximum of 6 units of credit.

#### 599 Independent Graduate Research

(1-3)

Open to graduate students with consent of instructor with whom the student wishes to pursue independent study in biology. May be repeated for credit.

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ADVISING CENTER (MILES (1) to

# business INTRODUCTION This major prepares students for entry level positions in business and administration in both the private and public sectors. Career opportunities range from accounting, cost analysis, mar-

This major prepares students for entry level positions in business and administration in both keting research and statistical forecasting to real estate, personnel, sales and information systems. This curriculum also provides a foundation for advanced study.

#### **ASSOCIATE DEAN (ACTING) ACADEMIC PROGRAMS**

Thomas Johnson

#### ASSISTANT DEAN **ACADEMIC ADVISING**

Robert Miyake

#### **ADVISING CENTER**

Langsdorf Hall 700

#### **PROGRAMS OFFERED**

Bachelor of Arts in Business

Administration

Concentrations in:

Accounting

**Business Economics** 

Finance

Management

Management Information Systems

Management Science

Marketing

Professional Business

Minor in Business Administration

Minor in Management Information Systems

Master of Business Administration

Concentrations in:

Accounting

**Business Economics** 

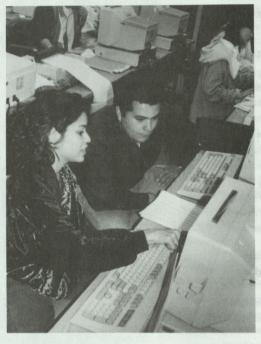
Finance

International Business

Management

Management Science/Information Systems

Marketing



#### BACHELOR OF ARTS IN **BUSINESS ADMINISTRATION**

#### Admission to the Business Administration Major

Admission to the Business Administration major involves two steps. Students who apply to the major are initially classified as Pre-business. After completing the lower-division core requirements with grades of at least C, students may apply to the Business Administration major. Pre-business students may take lower-division business courses, but most upper-division courses are not open to Pre-business students.

All of the following requirements must be met for the degree. Students must earn a grade of at least C in each core course listed below and in courses in the

Accounting, Management Science, and Management Information Systems Concentrations. A C average is acceptable in other concentrations. For assistance in interpreting these requirements contact the Business Advising Center.

#### Required Lower-Division Core Courses

Accounting 201A Financial Accounting (3)

Accounting 201B Managerial Accounting (3)

Business Admin 201 Business Writing (3)

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Management 246 Business and Its Legal Environment (3)

Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3)

Math 135 Business Calculus (3)

OR Math 130 Short Course in Calculus (4)

OR Math 150A Analytic Geometry and Calculus (4)

#### Required Upper-Division Core Courses

Business Admin 301 Advanced Business Communication (3)

Econ 310 Intermediate Microeconomic Analysis (3)

OR Econ 315 Intermediate Business Microeconomics (3)

OR Econ 320 Intermediate
Macroeconomic Analysis (3)

Finance 320 Business Finance (3)

Management 339 Principles of Management and Operations (3)

Management 340 Organizational

Behavior (3)

Manag Sci/Info Sys 361A Quantitative
Business Analysis: Probability and
Statistics (3)

Manag Sci/Info Sys 361B Quantitative Business Analysis: Statistics and Management Science (3)

Marketing 351 Principles of Marketing (3)

#### Required Capstone Core Course

After completing all lower- and upperdivision core courses, take:

Management 449 Seminar in Strategic Management (3)

#### **Required Concentration Courses**

Business administration majors must complete the requirements of one of the following concentrations: Accounting, Business Economics, Finance, Management, Management Information Systems, Management Science, Marketing, or Professional Business.

A minimum of 18 units of course work is required in one concentration. See listing of concentration requirements below.

#### Collateral Requirement

3-unit introductory social science course other than Economics, chosen from General Education section III.*C*.1.

# Other Requirements, Grades and Residence

Global Business Requirement. Complete one course, of at least 3 units, in the area of Global Business. The course must be selected from the list of Approved Global Business Courses, which is available from the Business Advising Center.

Other subjects. Complete at least 50 percent of the coursework for the degree in subjects other than business administration or economics. Complete all university requirements for the bachelor's degree.

Grade-Point Average (GPA). Maintain at least a 2.0 GPA (C average) in all university courses. Earn at least a C grade in each core course and the concentration courses in Accounting, Management Science, and Management Information Systems. A 2.0 GPA is required for all other concentrations.

Grade option. Take all required core courses and all required concentration courses in the School of Business Administration and Economics for a letter grade (A,B,C,D,F). The Credit/No Credit grading option may not be used for these courses, and a grade of CR (credit) will not satisfy the requirements for the degree. Exception: Courses in calculus may be taken under the Credit/No Credit grading option; however, if it is also taken to meet general education requirements then it must be taken for a letter grade.

Residence. At least one-half of the units in the concentration (except accounting, which requires 15) and a minimum of 30 units must be taken in residence in the School of Business Administration and Economics; at least 15 of the last 24 units before graduation must be taken in residence in the School of Business Administration and Economics.

# ACCOUNTING CONCENTRATION (21 UNITS)

All students with an accounting concentration are required to take the courses shown below. Before taking these courses, students must first complete all of the required lower-division core courses with a grade of at least C in each course and must receive a passing score on the Accounting Qualifying Exam. Passing the test must occur no earlier than one year prior to enrollment in the first upper-division accounting course.

Accounting 301A,B Inter. Accounting (3,3)

Accounting 302 Cost Accounting (3)

Accounting 308 Concepts of Federal Income Tax Accounting (3)

Accounting 402 Auditing (3)

Accounting 407 Accounting Information Systems (3)

and one of the following courses:

Accounting 401 Advanced Accounting (3)

Accounting 403 Accounting for Governmental and Nonprofit Entities (3)

Accounting 408 Problems in Taxation (3)

Accounting 460 Seminar in Financial Statement Analysis (3)

Accounting 470 Tax Research, Practice and Procedures (3)

# BUSINESS ECONOMICS CONCENTRATION (18 UNITS)

All students with an economics concentration are required to take Econ 310 Intermediate Microeconomic Analysis (3) or Econ 315
Intermediate Business Microeconomics (3) as part of their business administration core requirements. In addition, the concentration requires Econ 320 Intermediate
Macroeconomic Analysis (3) and Econ 410
Government and Business (3) and 12 units of upper-division economics electives, 3 units of which must be at the 400-level.

Students interested in economics also may wish to consider the Bachelor of Arts in Economics.

#### FINANCE CONCENTRATION (18 UNITS)

#### Required Courses (6 units)

Finance 332 Theory of Corporate Finance (3)

Finance 340 Introduction to Investments (3)

OR Finance 342 Capital and Money

# Markets (3) Electives (12 units)

Students must complete 12 units of elective courses in finance. Students are encouraged to choose as many courses as possible from one of the following topical areas.

Students are expected to consult with faculty advisers when selecting courses.

Financial Institutions

Finance 340 Introduction to Investments (3)

OR Finance 342 Capital and Money

Markets (3)

Finance 342 Capital and Money Markets (3)

Finance 370 International Business Finance (3)

Finance 371 Export-Import Financing (3)

Finance 425 Commercial Bank and Financial Institution Management (3)

Finance 452 Real Estate Finance (3)

Financial Management

Finance 331 Working Capital Management and Computer Applications (3)\*

Finance 370 International Business Finance (3)

Finance 432 Financial Forecasting and Budgeting (3)

Finance 433 Problems in Business Finance (3)

Insurance

Finance 335 Financial Analysis for Investors and Lenders (3)

Finace 360 Principles of Insurance (3)

Finance 410 Theory and Practice of Personal Financial Planning (3)

Finance 411 Retirement and Estate
Planning (3)

Finance 461 Property and Liability Risk Management (3)

Finance 462 Life and Health Insurance (3)

International Finance

Finance 340 Introduction to Investments (3)

OR Finance 342 Capital and Money

Markets (3)

Finance 370 Inter'l Business Finance (3)

Finance 371 Export-Import Financing (3)

Finance 373 Asia-Pacific Financial & Security Markets (3)

Finance 375 Global Financial Markets (3)

Investments and Financial Planning

Finance 335 Financial Analysis for Investors and Lenders (3)

Finance 340 Introduction to Investments (3)

Finance 355 Real Estate Investment Analysis (3)

Finance 360 Principles of Insurance (3)

Finance 410 Theory and Practice of Personal Financial Planning (3)

Finance 411 Retirement and Estate Planning (3)

Finance 442 Advanced Investment Analysis (3)

Finance 444 Options and Futures (3)

Note: To be eligible to sit for the Certified Financial Planner Examination, students must take all of the following: Finance 340, 360, 410, 411, 455, and Accounting 358.

Real Estate

Finance 351 Introduction to Real Estate (3)

Finance 355 Real Estate Investment Analysis (3)

Finance 451 Real Estate Law (3)

Finance 452 Real Estate Finance (3)

Finance 453 Real Estate Valuation (3)

Finance 454 Real Estate and Market Analysis (3)

Finance 456 Property Development and Management (3)

Note: To be eligible to sit for the Real Estate Broker License Examination, students must have completed eight courses in addition to the experience/educational requirements. These eight courses include the following five: Finance 451, 452, 453, 454 and Accounting 201A,B. Three courses are to be selected from the following: Finance 450, 551, 454, 455, 456, Managment 246 or

Accounting 201A,B if either was not used as a requirement.

## MANAGEMENT CONCENTRATION (18 UNITS)

Students in the management concentration must choose one of the following emphases:

#### Entrepreneurial Management (18 units)

Management 343 Personnel Management (3)
OR Management 443 Group Dynamics (3)

Management 345 Small Business Management (3)

OR Management 448 Seminar in Small Business Consulting (3)

Management 347 Current Legal Issues (3)

Management 425 Productivity and Quality Management (3)

and

6 units of elective course work from the following to be chosen in consultation with a departmental adviser:

Management 349 Law for Small Business (3)

Management 435 Service Organizations and Operations (3)

Management 440 Emerging Issues in Management (3)

Management 441 Labor-Management Relations (3)

Management 443 Group Dynamics (3)

Management 444 Project Management (3)

#### General Management (18 units)

Management 343 Personnel Management (3)

OR Management 443 Group Dynamics Management 347 Current Legal Issues (3)

Management 425 Productivity and Quality Management (3)

Management 440 Emerging Issues in Management (3)

and

6 units of elective course work from the following to be chosen in consultation with a departmental adviser:

Management 345 Small Business Management (3)

> OR Management 448 Seminar in Small Business Consulting (3)

Management 348 Commercial Law (3)

Management 349 Law for Small Business (3)

Management 421 Operations Systems
Design (3)

Management 431 Women in Management (3)

Management 433 Advanced Topics in Human Resource Management (3)

Management 435 Service Organizations and Operations (3)

Management 441 Labor-Management Relations (3)

Management 444 Project Management (3)

#### Human Resources Management/ Organization Behavior (18 units)

Management 343 Personnel Management (3)

Management 347 Current Legal Issues (3)

Management 425 Productivity and Quality Management (3)

Management 433 Advanced Topics in Human Resource Management (3)

Management 441 Labor Management Relations (3)

Management 443 Group Dynamics (3)

#### Operations Management (18 units)

Management 343 Personnel Management (3)

OR Management 443 Group Dynamics Management 347 Current Legal Issues (3)

Management 421 Operations Systems Design (3)

Management 422 Production and Inventory Control (3)

Management 425 Productivity and Quality
Management (3)

and

one elective from the following chosen in consultation with a departmental adviser:

Management 345 Small Business Management (3)

OR Management 448 Seminar in Small Business Consulting (3)

Manag Sci/Info Sys 410 Information Resources Management (3)

Management 430 Integrated logistics Management (3)

Management 435 Service Organizations and Operations (3)

Management 440 Emerging Issues in Management (3)

Management 444 Project Management (3)

#### MANAGEMENT INFORMATION SYSTEMS CONCENTRATION (21 UNITS)

All students with a Management Information Systems concentration are required to take:

Manag Sci/Info Sys 309 Elements of Information Systems (3)

Manag Sci/Info Sys 310 System

Development & Programming (3)

Manag Sci/Info Sys 370 Advanced COBOL Programming (3) OR Manag Sci/Info Sys 371 C++ for Business Applications (3)

Manag Sci/Info Sys 408 Data Base Management Systems (3)

Manag Sci/Info Sys 409 Business Telecommunications for Information System Design (3)

Manag Sci/Info Sys 411 Microcomputer Business Application Design (3)

Manag Sci/Info Sys 454 Seminar in Systems Analysis and Design (3)

### MANAGEMENT SCIENCE CONCENTRATION (18 UNITS)

#### Required Courses

Manag Sci/Info Sys 309 Elements of Information Systems (3)

Manag Sci/Info Sys 310 Systems Development and Programming (3)

Manag Sci/Info Sys 440 Intermediate Management Science Models (3)

# Electives in Statistics (Students must take at least one course from this category)

Manag Sci/Info Sys 422 Surveys and Sampling Design and Applications (3)

Manag Sci/Info Sys 461 Statistical Theory for Management Science (3)

Manag Sci/Info Sys 467 Statistical Quality Control (3)

Manag Sci/Info Sys 472 Design of Experiments (3)

Manag Sci/Info Sys 473 Applied Statistical Forecasting (3)

Manag Sci/Info Sys 475 Multivariate Analysis (3)

#### Other Electives

Economics 440 Intro. to Econometrics (3)
Finance 360 Principles of Insurance (3)
Finance 444 Options and Futures (3)

Management 422 Production and Inventory
Control (3)

Management 430 Integrated Logistics
Management (3)

Management 444 Project Management (3)

Manag Sci/Info Sys 408 Business Telecommunications for Info Systems Design (3)

Manag Sci/Info Sys 415 Decision Simulation in Business and Economics (3)

Manag Sci/Info Sys 448 Computer
Simulation in Business and Economics (3)

Manag Sci/Info Sys 465 Linear Programming in Management Science (3)

Manag Sci/Info Sys 490 Queuing and Stochastic Models in Management Science (3)

# MARKETING CONCENTRATION (18 UNITS)

#### Required Courses (9 units)

Marketing 353 Marketing Analysis (3)

Marketing 370 Buyer Behavior (3)

Marketing 379 Marketing Research Methods (3)

#### Electives (6 units)

Choose two from the following:

Marketing 401 Professional Selling (3)

Marketing 405 Managing Advertising (3)

Marketing 415 Managing the Sales Force (3)

Marketing 425 Retail Marketing Strategy (3)

Marketing 435 Business Marketing Management (3)

Marketing 445 Multinational Marketing Strategies (3)

Marketing 465 Managing Services
Marketing (3)

Marketing 475 Export Marketing Strategies (3)

# Marketing Concentration Capstone Course (3 units)

Marketing 489 Developing Marketing Strategies (3)

# PROFESSIONAL BUSINESS CONCENTRATION (18 UNITS)

#### Required Courses (9 units)

Student must complete three of the following four courses: Finance 335 Financial Analysis for Investors and Lenders (3)

Management 443 Group Dynamics (3)

Manag Sci/Info Sys 352 Advanced Data and Info Analyses for Business (3)

Marketing 401 Professional Selling (3)

#### Emphasis Courses (9 units)

Students complete one of the following emphases by taking three of the four courses listed under an emphasis:

Real Estate/Marketing

Finance 351 Introduction to Real Estate (3)

Finance 355 Real Estate Investment Analysis (3)

Finance 452 Real Estate Finance (3)

Marketing 353 Marketing Analysis (3)

Import/Export

Economics 411 International Trade (3)

Finance 370 International Business
Finance (3)

Finance 371 Export-Import Financing (3)

Marketing 475 Export Marketing Strategies (3)

Small Business Entrepreneurship

Management 345 Small Business Management (3)

Management 349 Law for Small Business (3)

Management 448 Small Business Consulting (3)

Marketing 435 Business Marketing Management (3)

Students who wish to pursue a personalized emphasis, may do so in consultation with the SBAE/MVC faculty advisor.

## MINOR IN BUSINESS ADMINISTRATION

The minor provides a basic understanding of the role of business in society and the methods used by business. This curriculum also provides a basis for advanced study. A working knowledge of algebra is necessary for several of the required courses.

Business administration minors shall not enroll in any required upper-division course (in the minor) until they have completed all of the required lower-division courses (in the minor) with a grade of at least C in each course. Students must earn a grade of at least C in each course required for the minor.

#### Required Lower-Division Courses

Accounting 201A,B Financial and Managerial Accounting (3,3)

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Management 246 Business and Its Legal Environment (3)

Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3)

#### Required Upper-Division Courses

Special Notice: Enrollment in these courses requires the completion of all lower-division minor requirements with a grade of C or better in each course.

Finance 320 Business Finance (3)

Management 339 Principles of Management and Operations (3)

OR Management 340 Organizational Behavior (3)

Marketing 351 Principles of Marketing (3)

Economics Majors Minoring in Business Administration: Economics Majors can complete a minor in business administration by taking Accounting 201A and B, Management 246, Finance 320, Management 339 or 340 and Marketing 351. All other required courses for the minor are required for the major in Economics.

#### MINOR IN MANAGEMENT INFORMATION SYSTEMS\*

This minor surveys modern computer methods and the development of information-systems. Emphasis is placed on systems which aid management decision-making. Students must earn a grade of at least C in each course listed below.

Accounting 201A Financial Accounting (3)

Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3)

Manag Sci/Info Sys 310 Systems Analysis and Design (3)

Manag Sci/Info Sys 309 Elements of Information Systems (3)

Manag Sci/Info Sys 408 Data Base Management Systems (3)

Upper-division elective approved by the adviser (3)

ment information systems. Interested students may elect to complete a second concentration in management information systems.

# MASTER OF BUSINESS ADMINISTRATION DEGREE

The M.B.A. degree program is accredited by the American Assembly of Collegiate Schools of Business. This assures a rigorous, in-depth program, covering the full spectrum of business administration. Accreditation also indicates a well-qualified faculty, high standards for students, access to computing and an extensive library system.

#### Programs of Study

The School of Business Administration and Economics offers two plans for the M.B.A. degree.

The M.B.A. Generalist Plan is designed for students with little or no course work in business administration. The curriculum surveys the entire field of business administration, preparing students for general management responsibilities.

The M.B.A. Specialist Plan is designed for students with recent course work (or an undergraduate degree) in business administration or for those who wish to include a specialized area of concentration in their curriculum. Some courses may be waived on the basis of equivalent undergraduate course work. The areas of concentration are accounting, business economics, finance, international business, management, management science/information systems and marketing.

The M.B.A. program is scheduled especially for students who are employed full-time. Courses are offered during the late afternoon and evening. Most students enroll on a part-time basis, taking two courses (6 units) per semester.

Most graduate courses in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.B.A., M.S. in Accountancy, M.S. in Management Science, M.S. in Taxation or M.A. in Economics programs.

#### Admission

Students meeting the following requirements will be admitted to postbaccalaureate-unclassified standing:

 Acceptable bachelor's degree from an appropriately accredited institution, or equivalent. 2. Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at last college attended.

Note: Postbaccalaureate-unclassified students may enroll in undergraduate courses (100 thru 400 level) but are generally ineligible for graduate business courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Change of Academic Objective-Graduate" requesting admission to the M.B.A. program. Admission to the university as a postbaccalaureate-unclassified student does not constitute admission to the M.B.A. program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the M.B.A. program should confer with the graduate adviser in the School of Business Administration and Economics.

Students meeting the following schoolspecific requirements will be admitted to the M.B.A. program with conditionally classified standing:

- Admission into the M.B.A. program is based upon an analysis of the following quantitative and qualitative considerations:
  - A. A combination of GPA and Graduate Management Admission Test (GMAT) score, sufficient to yield a minimum score of 1000 according to one of the following formulas. Due to limited space, a higher minimum score may be required of all applicants.
    - 1. If overall undergraduate GPA is at least 2.7 and GMAT is at least 450, then score = (GPA x 200) + GMAT.
    - If overall undergraduate GPA is below 2.7 or GMAT is below 450, then score = (GPA x 200) + GMAT - 50.
  - B. A score in the top 50 percent on the verbal, analytical and quantitative areas of the GMAT. Students who do not reach this level are required to complete a department approved course(s).
  - C. For international students a TOEFL score of 570. A student scoring between 550 and 570 may be admitted conditionally depending upon an evaluation of the entire application

<sup>\*</sup>Students with a major in business administration may not minor in manage-

- file. The student may be required to complete a department approved course(s).
- D. Review by the M.B.A. admissions committee of the following:
  - Academic preparation for graduate study.
  - 2. Any prior work experience.
- A "Statement of Purpose" in pursuing the M.B.A., to be submitted by applicant.

Note: Conditionally classified students may take a limited number of graduate courses (500 level), subject to the approval of the graduate adviser of the School of Business Administration and Economics. Students are expected to advance promptly to classified standing. In particular, any deficiencies in calculus or computer programming must be removed during the first 12 months of study. Students who do not do so will not be allowed to continue in the program.

Students meeting the following additional requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they are qualified.

- 4. Proficiency in calculus and computer programming equivalent to passing Mathematics 135 Business Calculus (3 units), and Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3 units), with grades of at least C. Students with work experience in these fields may demonstrate proficiency by passing a challenge examination and should consult the chair of the Management Science/Information Systems Department for details.
- 5. Approval of study plan.

#### Curriculum - M.B.A./Generalist Plan

The M.B.A./Generalist curriculum includes 14-17 courses (42-51 units).

Any deficiencies in calculus or computer programming must be removed within one year. A 3.0 GPA (B) is required in study plan courses and over all applicable course work. Any study plan course with a grade lower than C must be repeated with at least a C grade, regardless of the overall GPA of the student.

Up to nine units of foundation courses may be waived on the basis of equivalent undergraduate course work providing the proposed courses are no more than seven years old and have at least a C grade with an overall 3.0 GPA (B). Courses waived beyond

nine units must be replaced by an advanced course in the same discipline.

Foundation Courses

Accounting 510 Financial Accounting (3)

Business Admin 590 Strategic Management (3)

Economics 515 The Price System and Resource Allocation (3)

Finance 517 Managerial Finance (3)

Management 515 Management of Information in the Corporate Environment (3)

Management 516 Organizational Theory and Management of Operations (3)

Management 518 Legal Environment of Business (3)

Manag Sci/Info Sys 513 Statistical Analysis (3)

Marketing 519 Marketing Management (3)

Advanced Courses

All advanced courses must be at the graduate level.

Accounting 511 Seminar in Managerial Accounting (3)

Economics 521 Macroeconomic Theory and Policy (3)

Finance 523 Seminar in Corporate Financial Management (3)

Management 524 Seminar in Organizational Behavior and Administration (3)

Manag Sci/Info Sys 514 Decision Models for Business and Economics (3)

Marketing 525 Seminar in Marketing
Problems (3)

500-level elective chosen from any of the six SBAE departments

Terminal Evaluation

Business Admin 591 Comprehensive

Business Management (3)

Pass the individual written project in Business Admin 591 and complete the course with a grade of B or better.

#### Curriculum M.B.A./Specialist Plan

The M.B.A./Specialist curriculum includes a concentration in a specialized area and requires from 33 to 60 units of graduate course work. Students with a bachelor's degree in business administration may be able to complete the program with the minimum of 33 units. Students with little or no recent course work in business administration may require 60 units. Any deficiencies in calculus or computer programming must

be removed within one year. Any study plan course with a grade lower than C must be repeated with at least a C grade, regardless of the overall GPA of the student. A 3.0 GPA (B) is required in study plan courses and over all applicable course work.

#### Foundation Courses

Foundation courses may be waived on the basis of equivalent undergraduate course work, providing that the equivalent courses are no more than seven years old and have grades of at least C with a GPA of at least B.

Accounting 510 Financial Accounting (3)

Business Admin 590 Strategic Management (3)

Economics 515 The Price System & Resource Allocation (3)

Finance 517 Managerial Finance (3)

Management 515 Management of Information in the Corporate Environment (3)

Management 516 Organizational Theory and Management of Operations (3)

Management 518 Legal Environment of Business (3)

Manag Sci/Info Sys 513 Statistical Analysis (3)

Manag Sci/Info Sys 514 Decision Models for Business and Economics (3)

Marketing 519 Marketing Management (3)

A list of equivalent undergraduate courses is available from the graduate adviser. In many cases, students with a recent bachelor's degree in business administration from an accredited university will be able to waive all foundation courses.

#### Advanced Courses

All courses in this group must be taken at the graduate level. The Manag Sci/Info Sys seminar will be waived for students who have successfully completed both Manag Sci/Info Sys 513 and 514 (but not for students who have taken Manag Sci/Info Sys 361A and 361B.) Students with a concentration in international business are required to take only five of the following courses:

Accounting 511 Seminar in Managerial
Accounting (3)

Note: Students who have satisfactorily completed a course in cost accounting must substitute Accounting 521 Seminar in Administrative Accounting (3) for Accounting 511.

Economics 521 Macroeconomic Theory and Policy (3)

Note: Economics 521 is not open to students with credit in intermediate macroeconomics.

Finance 523 Seminar in Corporate Financial Management (3)

Management 524 Seminar in Organizational Behavior and Administration (3)

Manag Sci/Info Sys 526 Forecasting, Decision Analysis and Experimental Design (3)

OR Manag Sci/Info Sys 550 Special Topics on Information Systems Design and Data Communication (3)

OR Manag Sci/Info Sys 560 Advanced Deterministic Models (3)

OR Manag Sci/Info Sys 561 Advanced Probabilistic Models (3)

Marketing 525 Seminar in Marketing Problems (3)

Concentration Courses (except international business)

12 units in one of the following areas of concentration or if no concentration is desired, 12 units in a combination of courses from the following:

Accounting

Management

**Business Economics** 

Manag Sci/Info Systems

Finance

Marketing

At least 6 units of the concentration courses must be taken at the 500-level. Concentration courses are to be approved by the department chair concerned, or designee within the department, and the Associate Dean, School of Business Administration and Economics. If no concentration is desired, the combination must be approved by the Associate Dean.

Note: The accounting concentration electives must cover the following areas: Financial Accounting and Theory, Accounting Information Systems, Auditing, and Taxation. At least nine of these units must be at the graduate level.

Concentration Courses International Business

Five of the following courses (15 units) are required, including at least 9 units at the graduate (500) level. (Note: students with an international business concentration take

only five of the courses listed above under Advanced Courses.)

Accounting 518 Seminar in International Accounting (3)

Economics 531 International Economics (3)

Finance 570 Seminar in International Financial Management (3)

Management 547 Comparative Management (3)

Marketing 445 Multinational Marketing Strategies (3)

Elective (3 units)

Recommended electives include selected courses in history, political science, communications, geography and Chicano studies and must be aproved by the international business adviser.

Terminal Evaluation

Business Admin 591 Comprehensive Business Management (3)

Pass the individual project in Business Admin 591 and complete the course with a grade of B or better.

In exceptional cases, a thesis (Business Administration 598, Thesis) may also serve as an option. See the graduate adviser for details.

# BUSINESS ADMINISTRATION COURSES

#### 201 Business Writing (3)

Prerequisite: English 101 or equivalent (with a grade of C or better). Principles of effective writing in business. Extensive practice in various forms of business writing, Case studies.

#### 301 Advanced Business Communication (3)

Prerequisites: English 101, Business Admin 201, and Manag Sci/Info Sys 265 (or equivalent) with a C or better. An advanced course in business communication covering business case analysis, reports, negotiations, and oral presentations.

#### 495 Internship (1-3)

Prerequisites: junior standing, major in Business Administration, consent of the instructor, 2.5 GPA and semester in residence at the university. Planned and supervised work experience. May be repeated to a total of six units of credit. Credit/No Credit grading only.

#### 499 Independent Study (1-3)

Prerequisite: consent of instructor. Open to qualified students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

#### 501 Managerial Communication (3)

Prerequisites: classified SBAE status. Investigates the entire process of case analysis and case report. Analyzes management communication problems and formulates writing strategies.

#### 590 Strategic Management (3)

Prerequisites: classified M.B.A. status, within nine units of completing study plan. Focuses on importance of monitoring changes in environment(s) facing business and incorporating social, economic, and technological change into corporate decision-making process. Emphasizes use of analysis tools from other M.B.A. classes with focus on data sources and methods for effective environmental scanning; emphasis on business ethics and social responsibility, international competitiveness, and changes in legal environment.

#### 591 Comprehensive Business Management (3)

Prerequisites: classified SBAE status, within six units of completion of study plan and in final semester of program. Studies complex business problems and solutions. Builds skills in integrating knowledge from functional areas and applying them in an original and organized form to a range of business problems arising from changing technology, competitive market conditions, social changes, government actions. Includes article analysis, case analysis, a research project, individual and group reports and oral and written presentations. The individual project will fulfill the terminal degree requirement.

#### 598 Thesis (3)

Prerequisites: classified SBAE status and consent of associate dean. Individual research under supervision. See "Theses and Projects" in this catalog for university requirements.

# chemisti

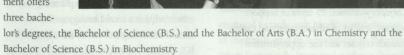
#### INTRODUCTION

The Department of Chemistry and Biochemistry is on the approved list of the American Chemical Society.

The curriculum is planned to provide thorough instruction in the basic principles and concepts of chemistry and biochemistry for students who will (1) advance to graduate work in chemistry or biochemistry; (2) teach in the science programs of secondary schools; (3) seek employment in industry or government;

(4) advance to medical. dental, or pharmacy training; or (5) pursue a degree or minor in support of a career in other areas such as physics, biology, geology, business and computer science.

The department offers three bache-



To qualify for any of these degrees, students must earn a C grade in all courses required for the major including prerequisites in related sciences or mathematics.

#### **ADVISERS**

Undergraduate - Gene Hiegel (Chemistry), Bruce Weber (Biochemistry), Graduate - Gregory Williams

#### **INTERNSHIPS**

Internship in chemistry (Chemistry 490) provides practical work experience which integrates with the student's classroom studies.

#### **RECOMMENDED PROGRAM IN GENERAL EDUCATION**

Because of high unit requirements for chemistry degree programs, a student majoring in chemistry is strongly urged to consult with a chemistry faculty adviser prior to designing his/her general education package. There is a six-unit exemption in general education for B.S. Chemistry degree majors for which the undergraduate Chemistry adviser must be consulted.

#### **UPPER-DIVISION BACCALAUREATE WRITING REQUIREMENT**

Chemistry and biochemistry majors can meet the coursework portion of the University's upper division writing requirement by passing either English 301 or English 360.

#### **DEPARTMENT CHAIR:**

John Olmsted

#### **DEPARTMENT OFFICE:**

McCarthy Hall 580

#### **PROGRAMS OFFERED**

Bachelor of Science in Biochemistry Bachelor of Science in Chemistry Bachelor of Arts in Chemistry Master of Science in Chemistry Emphasis in Geochemistry Minor in Chemistry Minor in Biotechnology Emphasis in Biotechnology Emphasis in Environmental Chemistry

#### SUBJECT MATTER PREPARATION **PROGRAM**

Single Subject Teaching Credential in Science

#### **FACULTY**

Robert Belloli, Richard Deming, Christina Goode, A. Scott Hewitt, Gene Hiegel, Katherine Kantardjieff, Maria Linder, Christopher Meyer, John Olmsted, Harold Rogers, Eric Streitberger, Fu-Ming Tao, Joseph Thomas, Jill Vickery, Bruce Weber, Patrick Wegner, Gregory Williams, W. Van

# BACHELOR OF SCIENCE IN BIOCHEMISTRY

The B.S. degree in Biochemistry is recommended for students planning to go directly into professional biochemistry and for students planning to attend graduate school in biochemistry or molecular biology. It is also excellent preparation for medical, dental and pharmacy school. Students who complete this program and include Chemistry 325 and Chemistry 411 (3 units) qualify for certification by the American Chemical Society. A total of 124 units, including general education, 42 units of Chemistry courses, 28-31 units of support courses, and the upper-division writing requirement are required for the B.S. in Biochemistry.

#### Basic Requirements (37 units)

These courses prerequisite to additional required courses.

General Chemistry (Chemistry 120A,B) (10)

Organic Chemistry (Chemistry 301A,B) (6)

Organic Chemistry Laboratory (Chemistry

Fundamental Physics (Physics 225, 226, 227) (1 unit) (7)

Fundamental Physics Lab (Physics 225L, 226L) (2)

Analytic Geometry and Calculus (Math 150A,B) (8)

Principles of Biology (Biology 131) (3)

Note: With adviser's approval, Physics 211, 211L, 212 and 212L or equivalent may be substituted for Fundamental Physics. Chemistry 305, 306A and B may be substituted for 301B and 302.

#### Additional Required Courses (35-39 units)

Theory of Quantitative Chemistry (Chemistry 315) (3)

Quantitative Chemistry Laboratory (Chemistry 316) (1)

Introduction to Physical Chemistry (Chemistry 361A,B) (6)

Career Options in Chemistry (Chemistry 390) (1)

General Biochemistry (Chemistry 423A,B) (6)

Biochemistry Laboratory (Chemistry 422) (2)

Senior Research (Chemistry 495) (3)

Genetics and Molecular Biology (Biology 312) (3) Introductory Chemical Computation (Chemistry 210) (2)

OR Intermediate Calculus (Math 250A) (4)

Advanced College Writing (English 301)

OR Scientific and Technical Report

Writing (English 360) (3)

Two of the following, one of which must

be in Biology (5-8 units)

Biology 302, 315, 362, 405, 412, 413, 424 Biology/Chemistry 472A, 472B, 477

Chemistry 325, 335, 411 (3 units), 431, 438, 445

*Note:* Chemistry 371A,B may be substituted for Chemistry 361A,B

# BACHELOR OF SCIENCE IN CHEMISTRY

The Bachelor of Science degree in chemistry is recommended for students planning to go directly into professional chemistry and for those who wish to do graduate work in chemistry. Students who complete this program and include an advanced course in instrumental analysis (such as 3 units of Chemistry 411) and advanced inorganic chemistry (425) qualify for certification by the American Chemical Society. A total of 124 units, including general education (less the six-unit exemption), 55 units of Chemistry courses, 25 units of support courses, 9 units of adviser-approved careerbreadth courses and the upper-division writing requirement are required for the B.S. in Chemistry.

#### Basic Requirements (40 units)

These courses are prerequisite to the additional required chemistry courses.

General Chemistry (Chemistry 120A,B) (10)

Organic Chemistry (Chemistry 305A,B) (10)

Quantitative Chemistry (Chemistry 315) (3)

Fundamental Physics (Physics 225, 226, 227 [1 unit], 225L, 226L) (9)

Analytic Geometry and Calculus (Math 150A,B) (8)

Note: For students planning to pursue a graduate degree, both Physics 227 (3 units) and 227L (1 unit) are highly recommended.

# Additional Required Chemistry Courses (22 units)

Introductory Chemical Computation (Chemistry 210) (2)

Quantitative Chemistry Laboratory (Chemistry 316) (1)

Inorganic Chemistry (Chemistry 325) (3)

Physical Chemistry (Chemistry 371A,B) (6)

Physical Chemistry Laboratory (Chemistry 355) (3)

Career Options in Chemistry (Chemistry 390) (1)

Senior Research (Chemistry 495) (3)

Upper-division elective (3)

The following upper-division chemistry courses do not apply toward the upper-division elective requirement: Chemistry 480A, 490, 495, 496 and 499.

#### Other Requirements (20 units)

Calculus and Linear Algebra (Math 250A,B) (8)

Advanced College Writing (English 301 OR English 360) (3)

Career breadth (9)

#### Career Breadth Requirements

The career breadth requirement is satisfied by taking nine units of upper-division coursework directly related to the student's career plans and approved in advance by the undergraduate adviser.

#### **BACHELOR OF ARTS IN CHEMISTRY**

The Bachelor of Arts in Chemistry is offered for students who are planning careers which require a sound background in fundamental chemistry, but not at the depth of the B.S. degree. The B.A. is particularly suited for those who plan to go into areas such as secondary education, technical sales, food processing, chemical patent law and forensic sciences. A total of 124 units, including general education, 36 units of Chemistry courses, 16 units of support courses, and the upper-division writing requirement are required for the B.A. in Chemistry.

#### Basic Requirements (37 units)

These courses are prerequisite to the additional required chemistry courses:

General Chemistry (Chemistry 120A,B) (10)

Organic Chemistry (Chemistry 301A,B, 302) (8)

Quantitative Chemistry (Chemistry 315) (3)

Elementary Physics (Physics 211, 212, 211L, 212L) (8)

Analytic Geometry and Calculus (Math 150A,B) (8)

# Additional Required Chemistry Courses (15 units)

Introductory Chemical Computation (Chemistry 210) (2)

Quantitative Chemistry Laboratory (Chemistry 316) (1)

Inorganic Chemistry (Chemistry 325) (3)

Introduction to Physical Chemistry (Chemistry 361A,B) (6)

Career Options in Chemistry (Chemistry 390) (1)

Senior Research (Chemistry 495) (2)

#### Other Requirements (9 units)

Advanced College Writing (English 301 OR 360) (3)

Adviser-approved career breadth electives (6)

#### Chemistry/Pre MBA Program

A student may combine a B.A. in chemistry with a minor in Business Administration to qualify to enroll in and complete an MBA degree at CSUF in one additional year (33 units), provided all entrance requirements for the MBA program have been met. See your department adviser for details.

#### **MINOR IN CHEMISTRY**

A minor in Chemistry requires a minimum of 24 acceptable units of chemistry, including general chemistry (Chemistry 120A,B) plus 14 units of upper-division chemistry courses. These courses must be completed with an overall GPA of 2.0. (The following upper-division chemistry courses are not applicable toward a minor: Chemistry 311, 321, 390, 480A, 490, 490B, 495, 496 and 499).

The chemistry minor is appropriate for students majoring in a number of areas. Some upper-division course combinations which constitute appropriate minors are: Medical Technology: Chemistry 301A,B, 302, 422, 445. Molecular Biology: Chemistry 301A,B, 302, 421A,B. Geological Sciences: Chemistry 301A, B, 315, 325, 361A. Physics: Chemistry 301A,B, 315, 371A,B. Science Education: Chemistry 301A,B, 361A,B, 325. Environmental Science: Chemistry 301A,B, 302, 315, 335. Other areas where a minor in chemistry is appropriate include Art Restoration, Forensic Science, Industrial Administration, Science Writing, and Environmental or Patent Law. Students with interests in these or other areas should consult the chemistry undergraduate adviser about courses appropriate for a minor.

#### MINOR IN BIOTECHNOLOGY

See description of this minor under the Department of Biological Science.

#### **EMPHASIS IN BIOTECHNOLOGY**

This emphasis is appropriate for students majoring in biochemistry and interested in gaining employment in nearly any area of the medical and agricultural biotechnology industries, working in academic research laboratories, or pursuing postgraduate degrees in molecular biology or biochemistry.

#### Required Courses (12 units)

Advances in Biotechnology Lab (Chem 472A,B) (6)

Advances in Biotechnology (Chem 477) (3)

Principles of Gene Manipulation (Biol 412) (3)

*Note*: Six of the twelve required units may also be applied to meet elective requirements for the B.S. Biochemistry degree.

# EMPHASIS IN ENVIRONMENTAL CHEMISTRY

This emphasis provides a concentration in chemistry with respect to the environment. The coursework addresses issues of concern such as EPA analysis protocols and other analytical methods, the interactions of chemicals with the air, water, and soil environments, how chemicals interact with living systems, chemical hazards, safe handling and disposal of chemicals, and an introduction to the regulatory framework. Interested students should consult their academic adviser for specific course requirements. The emphasis provides training for individuals interested in becoming environmental scientists and for those interested in graduate programs in this area.

#### Requirements (17-19 units)

Introduction to Environmental Chemistry (Chem 335) (3)

Three of the following:

Chemistry of Hazardous Materials (Chem 435) (2)

Atmospheric Chemistry (Chem 436) (2)

Environmental Water Chemistry (Chem 437) (2)

Environmental Biochemistry (Chem 438) (2)

Three of the following:

Optical Spectroscopy (Chem 411A) (1)

Separations (Chem 411C) (1)

Radiochemistry (Chem 411E) (1)

Mass Spectrometry (Chem 411G) (1)

Statistics Applied to the Natural Sciences (Math 338) (3)

(This course can be substituted for Chemistry 210 in meeting requirements for the major.)

Senior Research (Chem 495) (2-4)

(Topic must be environmentally related and meet the major requirement.)

Note: The Environmental Chemistry
Emphasis may be integrated with the B.S.
Chemistry with no additional required units
by using the above courses to meet career
breadth and elective requirements. Chem
335 may also be used as an elective for the
B.S. Biochemistry degree. Six units of the
emphasis may also be applied to the electives for the B.S. Chemistry degree. The
environmental chemistry courses also can be
used to satisfy requirements for the minor in
chemistry.

# REQUIREMENTS FOR CHEMISTRY MAJORS SEEKING A TEACHING CREDENTIAL

To qualify for the Subject Matter
Preparation Program for the Single Subject
Teaching Credential in Science with a concentration in Chemistry, students should
elect the B.A. with the following changes:

- Students substitute Science Education 412 for Chemistry 495.
- 2. Students must take Biology 131, and either 241 or 261.
- 3. Students must also take Geological Science 101, 101L and 420.

#### MASTER OF SCIENCE IN CHEMISTRY

The degree is designed to qualify students for more advanced work in chemistry, to provide preparation which will lead to responsible positions in industrial or government research and development laboratories, and to provide preparation for the effective teaching of chemistry in high schools and community colleges.

The program provides fundamental courses at a level and depth commensurate with those taken during the first year of a doctoral program and provides an introduction to research and research methods.

#### Admission

Students must meet the university requirements for admittance to the university. This normally requires a baccalaureate degree from an accredited institution and a

grade-point average of at least 2.5 in the last 60 semester units attempted. (See the section of this catalog on Graduate Admissions for a complete statement and procedures.) In addition to university requirements, in order to achieve conditionally classified standing in the chemistry program, a student must meet the following requirements:

- An undergraduate degree in chemistry or a selection of science courses deemed as adequate preparation for further study in chemistry by the Department Graduate Committee; and
- At least a 2.5 GPA in upper-division chemistry courses.

#### Classified Standing

Each student is required to take examinations in the areas of physical and organic chemistry plus two from the areas of analytical, inorganic or biochemistry. The results of these examinations are used in advising the student and as criteria for advancement to classified standing. In order to proceed from conditionally classified to classified standing, the student must meet the following requirements:

- Satisfactory grades on three of the four qualifying examinations or passing department approved courses in these areas with grades of A or B.
- 2. Approved selection of a research director.
- 3. An approved study plan.
- 4. The University graduate level-writing requirement.

#### Study Plan

Two alternatives are available for the study plan. The student can complete either a laboratory thesis (preferred) or a library thesis.

The degree program consists of 30 units of graduate committee-approved course work completed with a minimum grade-point average of 3.0 in all course work exclusive of Chemistry 505A,B and 599. Each student prepares a study plan in consultation with the graduate program adviser which must be approved by the student's research director, the department, and the Office of Graduate Studies. All chemistry courses on the study plan must be 400 level or above.

Study plans may contain no more than 2 units of Chemistry 505, and no more than 6 units of Chemistry 599 (3 units for students electing the library thesis alternative).

1. Basic requirements

Courses required of all students:

Chemistry 505A,B Seminar (2)

Chemistry 599 Independent Graduate
Research (3)

Chemistry 598 Thesis (1-6)

2. 500-level Requirements

A minimum total of 15 units of 500-level courses is required.

3. Specialization Requirements

The courses in the study plan must include a minimum of nine units (not including Chemistry 505A,B, 598, 599) in one of the following areas of specialization, including related areas: (1) analytical chemistry; (2) biochemistry; (3) inorganic chemistry; (4) organic chemistry; (5) physical chemistry. An emphasis in geochemistry is also available. Consult the chemistry graduate adviser for more information.

4. Breadth Requirements

In order to insure sufficient breadth and background, one course is required from each of the following groups if the student has not passed (with a B or better) an equivalent course as an undergraduate. However, courses taken as an undergraduate cannot be applied to the 30 units required for graduation, unless they are in excess of the undergraduate degree requirement.

Group I

Chemistry 411 Instrumental Analysis (3)

Chemistry 425 Advanced Inorganic Chemistry (3)

Group II

Chemistry 423A General Biochemistry (3)

Chemistry 431 Advanced Organic

Chemistry (3)

Group III

Chemistry 550 Advanced Thermodynamics (3)

Chemistry 551 Quantum Chemistry (3)

Chemistry 543 Physical Biochemistry (for Biochemistry students only) (3)

For further details or advisement concerning the M.S. program, contact the graduate adviser.

# CHEMISTRY AND BIOCHEMISTRY COURSES

#### 100 Survey of Chemistry (3)

Prerequisite: one year of high school algebra. The fundamental principles of chemistry; atomic and molecular structure and the application of these principles to contemporary problems. For the nonscience major. (3 hours lecture)

#### 100L Survey of Chemistry Laboratory (1)

Prerequisite: concurrent or prior enrollment in Chemistry 100. Experiments chosen to develop laboratory techniques; chemical principles and their application to environmental and societal problems. (3 hours laboratory).

#### 111 Nutrition and Drugs (3)

The basics of nutrition, diet, food additives, vitamins, hormones, drugs, disease and related biochemical topics. Current controversies, popular practices, fads and fallacies. For the non-science major. (3 hours lecture)

#### 115 Introductory General Chemistry (4)

Chemistry at the basic level. For students with limited background in chemistry who plan to take additional chemistry or other science courses. Does not fulfill chemistry requirements for majors or minors in the physical or biological sciences. (3 hours lecture, 2 hours activity)

#### 120A,B General Chemistry (5,5)

Prerequisites: Passage of the chemistry placement examination and exemption from or passage of the ELM examination or completion of Chemistry 115 with a grade of C or better. For majors and minors in the physical and biological sciences. (CAN CHEM SEQ A = Chemistry 120A and B)

- A. The principles of chemistry: stoichiometry, acids, bases, redox reactions, gas laws, solid and liquid states, changes of state, modern atomic concepts, periodicity and chemical bonding. Laboratory: elementary physical chemistry and volumetric quantitative analysis. (3 hours lecture, 6 hours laboratory) (CAN CHEM 2)
- B. Chemical thermodynamics, chemical equilibrium (gaseous, aqueous, acid-base, solubility and complexion), elementary electrochemistry and chemical kinetics.

  Laboratory: quantitative analysis and elementary physical chemistry; some qualitative analysis. (3 hours lecture, 6 hours laboratory). (CAN CHEM 4)

#### 125 General Chemistry for Engineers (3)

Prerequisites: Chemistry 120A. The topics are the same as Chemistry 120B but without laboratory. Not open to students with credit in Chemistry 120B. (3 hours lecture)

#### 196 Student-to-Student Tutorials (1-3)

Supervised experience in chemistry teaching through tutoring or assisting in lower-division laboratory or field classes. Consult "Student-to-Student Tutorials" in this catalog for prerequisites and a more complete course description.

# 210 Introductory Chemical Computation (2)

Prerequisites: Chemistry 120A,B and a major in chemistry or biochemistry.

Introduction to the use of spreadsheets and C language programming for chemical problem solving and data management. Chemical algorithms; data analysis and interpretation; graph selection and preparation; database creation and management; file transfers between programs and operating systems.

#### 295 Directed Study (1)

Prerequisite: consent of instructor. Research in chemistry under the supervision of a chemistry department faculty member. Credit/no credit only. May be repeated for credit. Does not count towards major. All undergraduate students engaged in a chemistry research project must be enrolled in either Chemistry 295 or 495. (3 hours laboratory per unit)

#### 301A,B Organic Chemistry (3,3)

Prerequisites: Chemistry 120A,B.

Properties and reactions of aliphatic and aromatic compounds, theories of structure, and reaction mechanisms. For the nonchemistry major or for a B.A. in Chemistry or B.S. in Biochemistry. (3 hours lecture)

#### 302 Organic Chemistry Laboratory (2)

Prerequisite: Chemistry 301A.

Corequisite: Chemistry 301B. Techniques for the synthesis, characterization and isolation of typical aliphatic and aromatic compounds. (6 hours laboratory)

#### 302A,B Organic Chemistry Laboratory (1,1)

Chemistry 302A must be taken concurrently with Chemistry 301A. Techniques for the synthesis, isolation and characterization of typical aliphatic and aromatic compounds. Students wishing to fulfill all of their organic chemistry laboratory requirements in a single semester should enroll in Chemistry 302.

#### 305 Organic Chemistry (3) (Formerly 305A, B)

Prerequisites: Chemistry 301A.

Corequisite: Chemistry 306B. Continuation of Chemistry 301A for B.S. in Chemistry or B.S. in Biochemistry.

#### 306A Organic Chemistry Laboratory (2)

Prerequisites: Chemistry 120 A,B.
Corequisite: Chemistry 301A. Techniques for synthesis, isolation and characterization of typical aliphatic and aromatic compounds, with applications of instrumental and spectroscopic methods. For the B.S. in Chemistry or B.S. in Biochemistry.

#### 306B Organic Chemistry Laboratory (2)

Prerequisite: Chemistry 301A, 306A. Corequisite: 305A. Continuation of Chemistry 306A. For the B.S. in Chemistry or B.S. in Biochemistry.

#### 311 Nutrition and Disease (3)

Prerequisites: Chemistry 111 and Biology 101. Relationship between nutrients and disease, with an emphasis on cancer, atherosclerosis and infectious illness. Dietary factors that modify and/or contribute to the disease process from the viewpoints of physiology, biochemistry and immunology. Not applicable to the major or minor. (3 hours lecture)

#### 315 Theory of Quantitative Chemistry (3)

Prerequisite: Chemistry 120B. Physics 211, 212 or Physics 225, 226 strongly recommended. Modern analytical chemistry; aqueous and nonaqueous equilibrium calculations, electrochemistry, spectrometry, and contemporary separation methods with emphasis on chromatography. (3 hours lecture)

#### 316 Quantitative Chemistry Laboratory (1)

Prerequisite: Chemistry 315. Corequisite: Chemistry 210. Modern analytical chemistry laboratory: polyprotic acids, liquid chromatography, electrochemistry, absorption spectroscopy (ultraviolet/visible, infrared, atomic). (3 hours laboratory)

#### 325 Inorganic Chemistry (3)

Prerequisites: Chemistry 301B or 305.

The chemistry of the main group elements and an introduction to transition metal chemistry. (3 hours lecture)

# 331 Environmental Pollution Problems and Solutions (3)

Prerequisites: Completion of general education requirements in physical science and mathematics. Air, water, and soil problems and solutions put into perspective using fundamental chemistry and civil engineering principles. Focus in local environmental issues. (3 hours lecture, 3 field trips during class time required.) (Same as EG-CE 331)

# 335 Introduction to Environmental Chemistry (3)

Prerequisites: Chemistry 301B and Chemistry 315 or equivalent. An overview of current terminology, regulations, types of hazards, analytical methods, EPA protocols, chemical compatibility and storage, interaction between chemicals and the environment, introduction to water, air, and soil chemistry, assessment of pollution effects, and selected case histories.

#### 355 Physical Chemistry Laboratory (3)

Prerequisites: Chemistry 316. Corequisites: Chemistry 361B or 371B and Chemistry 210 or the equivalent. Experiments in chemical synthesis, instrumental analysis and physical chemistry. Laboratory training and written presentation of theory, data and results are emphasized. (1 hour lecture, 6 hours laboratory)

# 361A,B Introduction to Physical Chemistry (3,3)

Prerequisites: Mathematics 150A,B; Physics 211, 212 or 225, 226, Chemistry 301A,B or 305. Corequisite: Chemistry 315.

Thermodynamics and kinetics; properties of gases and solutions; molecular structure and energies and application to spectroscopic techniques; liquids, phase equilibria, thermodynamics of multicomponent systems with application to the life sciences. (3 hours lecture)

#### 371A,B Physical Chemistry (3,3)

Prerequisites: Mathematics 250A, Physics 225, 226 and Chemistry 301A. Corequisite: Mathematics 250B and Chemistry 315.

Thermodynamics, solutions, chemical and phase equilibria, electrochemistry, transport phenomena, introduction to atomic and molecular structure, rotation and vibration spectroscopy, statistical mechanics, kinetics. The use of fundamental principles to solve problems. (3 hours lecture)

#### 390 Careers in Chemistry and Biochemistry (1) (Formerly 490A)

Prerequisites: Chemistry 120B. Career options in chemistry. Credit/no credit only. (1 hour lecture)

#### 411A-G Instrumental Analysis (1)

Prerequisites: Chemistry 315 and 355 or 422. Corequisite: Chemistry 361B or 371B or consent of instructor (for Chemistry 411A only). Students wishing an ACS certified degree must take three units. (1 hour lecture, 3 hours laboratory for 5 weeks)

- A. Optical Spectroscopy (UV/visible, infrared, atomic absorption, flame emission)
   Instructional fee required (refundable).
- B. Magnetic Resonance (nuclear magnetic resonance, electron spin resonance)
  Instructional fee required (refundable).
- C. Separations (high performance liquid chromatography, gas chromatography)
   Instructional fee required (refundable).
- D. Electrochemistry (polarography [d, pulse, a], cyclic voltammetry, coulometry).
- E. Radiochemistry
- F. Computers and Interfacing. Instructional fee required (refundable).
- G. Mass spectrometry (conventional magnetic sector, quadrupole, Fourier transform, tandem, and time-of-flight; combined techniques including gas chromatography (GC-MS), liquid chromatography (LC-MS). Instructional fee required (refundable).

#### 421A,B Biological Chemistry (3,3)

Prerequisites: Chemistry 301A,B.
Corequisite: Biology 312. Major areas of biochemistry, including chemistry and functions of compounds of biochemical interest.
Mechanisms and thermo- dynamics of intermediary metabolism. Biochemical foundations of the health sciences. Designed for biology majors. (3 hours lecture)

#### 422 General Biochemistry Laboratory (2)

Prerequisites: Chemistry 302A or 306A and 316. Corequisite: Chemistry 421A and 423A. The chemistry and metabolism of carbohydrates, nucleic acids, lipids and proteins; techniques of enzyme chemistry and isolation; research methods. (6 hours laboratory)

#### 423A,B General Biochemistry (3,3)

Prerequisites: Chemistry 301B or Chemistry 305. Corequisite: Chemistry 215 and Biology 312. Survey of biochemistry; structural chemistry and function of biomolecules, bioenergetics and intermediary metabolism; replication and expression of the genetic material. Designed for biochemistry majors. (3 hours lecture)

#### 425 Advanced Inorganic Chemistry (3)

Prerequisites: Chemistry 325 and 361A,B or 371A,B. The bonding, structure and reactivity of transition and lanthanide elements. Molecular orbital and ligand field theory, classical metal complexes and organometallic chemistry of the transition elements. (3 hours lecture)

#### 431 Advanced Organic Chemistry (3)

Prerequisites: Chemistry 301B and 305 and 361A,B or 371A,B or consent of instructor. Theoretical and physical aspects of organic chemistry. The modern concepts of structure, and reaction mechanisms. (3 hours lecture)

#### 435 Chemistry of Hazardous Materials (2)

Prerequisites: Chemistry 301B and 305. An in-depth examination of hazardous chemicals; organic and inorganic air-and-moisture-sensitive compounds, reactive metals; chemical reactivity patterns; chemical compatibilities; storage and handling; methods of disposal and waste containment; Federal and local regulations; case histories. (2 hours lecture)

#### 436 Atmospheric Chemistry (2)

Prerequisite: Chemistry 315 or consent of instructor. Chemistry and photochemistry of the troposphere and stratosphere, both natural and polluted. Includes fundamental reaction kinetics and mechanisms, monitoring techniques, smog chamber, field and modelling studies. (2 hours lecture)

#### 437 Environmental Water Chemistry (2)

Prerequisite: Chemistry 315. Chemical characteristics of fresh and oceanic water; major water pollutant classes, origins, environmental chemical transformations, effects, abatement, and fates; chemical methods for determining water quality, large scale processes for water treatment. (2 hours lecture)

#### 438 Environmental Biochemistry (2)

Prerequisites: Chemistry 301B plus
Chemistry 305. Effects of current agricultural, industrial and mechanical practices on
the composition, metabolism and health of
soil, plants, animals and man, from a biochemical perspective; mechanism of action
and degradation of common agricultural
chemicals and industrial pollutants. (2 hours
lecture)

#### 445 Nutritional Biochemistry (3)

Prerequisite: Chemistry 423A or Chemistry 421A, or one semester biochemistry. Nutrition, metabolism and excretion of carbohydrates, proteins, fats, vitamins, major minerals and trace elements from a biochemical perspective. Relevant variations in dietary practices related to life stages and specific illnesses. (3 hours lecture)

#### 472A Advances in Biotechnology Laboratory (3)

Prerequisite: Biology 320 or Chemistry 422. Corequisite: Biology 412. Explores biotechnology techniques for DNA cloning and analysis: restriction enzyme action, DNA sequencing, sequence analysis by computer, plasmid cloning, genomic library production and screening, DNA probe hybridization. (6 hours of laboratory, 1 hour of lecture/discussion) (Same as Biology 472A)

#### 472B Advances in Biotechnology Laboratory (3)

(Same as Biology 472B)

#### 477 Advances in Biotechnology (3)

Prerequisite: Biology 312. Corequisite: Biology 412 or Chemistry 421B or 423B. Current topics in biotechnology centering on techniques for molecular cloning and DNA sequencing of genes. Medical breakthroughs for diagnosis of mutations and gene therapy. Role of biotechnology in agriculture, energy and environment. Bioethical issues. (Same as Biology 477) (3 hours lecture)

#### 480A Topics in Contemporary Chemistry (1)

Prerequisite: upper-division standing in chemistry. Research seminar dealing with topics of current interest in chemistry such as photochemistry, biochemistry, analytical chemistry and organometallic chemistry. Credit/no credit only. Not applicable toward master's degree. May be repeated for credit.

#### 480T Topics in Contemporary Chemistry (2-3)

Prerequisite: upper-division standing in chemistry. Special lecture topics of current interest in chemistry. May be repeated for credit. (1 hour lecture per unit)

# 490 Internship in Chemistry (1-2) (Formerly 490B)

Prerequisites: upper-division standing in chemistry; Chemistry 355 or 422; and consent of instructor. Internship in chemistry. Work in projects in industrial, governmental or medical laboratories. May count as career breadth requirement units for chemistry majors. May be repeated once. Does not count toward M.S. degree.

#### 495 Senior Research (1-3)

Prerequisites: three one-year courses in chemistry, Chemistry 390 and consent of instructor. Corequisite: English 301 or 360. The methods of chemical research through a research project under the supervision of one of the Department faculty. May be repeated for credit. Only 6 units may apply toward B.A. or B.S. degree (3 hours per week per unit)

#### 496 Student-to-Student Tutorials (1-3)

Supervised experience in chemistry teaching through tutoring or assisting in laboratory or field classes. Consult "Student-to-Student Tutorials" in this catalog for prerequisites and a more complete course description.

#### 498 Senior Thesis (2)

(Same as Biology 498)

#### 499 Independent Study (1-3)

Prerequisites: upper-division standing and completion of two one-year courses in chemistry. Special topics in chemistry selected in consultation with the instructor and approval of department chair. May be repeated for credit. Only six units may apply toward B.A. or B.S. degree.

#### 505A Seminar (Participation) (1)

Prerequisites: graduate standing and consent of department. Student attendance at presentations by invited scientists on topics of current interest in chemistry. May not be repeated for credit. (1 hour seminar)

#### 505B Seminar (Presentation) (1)

Prerequisites: Chemistry 505A, graduate standing and consent of the department. Student presentation of recent contributions to the chemical literature. May not be repeated for credit. (1 hour seminar)

#### 511 Theory of Separations (3)

Prerequisites: Chemistry 355 and 361A,B or 371A,B. The theory, application and limitations of physical and chemical separation techniques; chromatography. (3 hours lecture)

#### 517 Computational Chemistry (3)

Prerequisites: Chemistry 355 or 422; 361A,B, or 371A,B; and Chemistry 210 or Engineering 205. Computational methods applied to the solution of chemical problems. (3 hours lecture)

#### 535 Organic Synthesis (3)

Prerequisites: Chemistry 361A,B or 371A,B. Methods of synthetic organic chemistry and their application to construction of organic molecules. (3 hours lecture)

#### 539 Chemistry of Natural Products (3)

Prerequisites: Chemistry 301A,B or 305A,B. The biosynthesis of the alkaloids, terpenes, steroids and other natural products of plant and animal origin. (3 hours lecture)

#### 543 Physical Biochemistry (3)

Prerequisites: Chemistry 361A,B or 371A,B, 421A,B or 423A,B or consent of instructor. Methods for measuring physical properties of proteins and nucleic acids. Thermodynamic and hydrodynamic aspects. (3 hours lecture)

#### 546 Metabolism and Catalysis (3)

Prerequisites: Chemistry 421A,B or 423A,B or consent of instructor. Regulation of biosynthetic and degradative reactions in living systems. The control of enzyme activity and concentration. Mechanisms of hormone action. (3 hours lecture)

#### 551 Quantum Chemistry (3)

Prerequisites: Chemistry 371A,B.

Postulates and theories of approximation methods in quantum chemistry, the electronic structure of atoms and molecules, chemical bonds, group theory and applications. (3 hours lecture)

#### 580T Topics in Advanced Chemistry (1-6)

Prerequisite: graduate standing in chemistry. Current research topics in chemistry in the areas of analytical, organic, inorganic, physical chemistry and biochemistry. May be repeated for credit. (1 hour seminar per unit)

#### 598 Thesis (1-6)

Prerequisite: an officially appointed thesis committee. Guidance in the preparation of a thesis for the master's degree.

#### 599 Independent Graduate Research (1-6)

Prerequisite: graduate standing in chemistry. May be repeated for credit.

# chicano studies

#### **DEPARTMENT CHAIR:**

Isaac Cardenas

#### **DEPARTMENT OFFICE:**

**Education Classroom 475** 

#### **PROGRAMS OFFERED**

Bachelor of Arts in Ethnic Studies

Option in Chicano Studies

Minor in Chicano Studies

#### **FACULTY**

Isaac Cardenas, Dagoberto Fuentes, Naomi Quinonez

#### **ADVISERS**

Consult the department chair.

#### INTRODUCTION

Chicano studies examines the culture, language, education, history, politics, and socioeconomics of Americans of Mexican heritage. The major in Chicano studies emphasizes preparation for: (1) those interested in teaching either at the elementary or secondary level; (2) specialists in bilingual cross-cultural education; (3) majors in other academic fields such as liberal studies, history, sociology, psychology, literature, or anthropology, who wish to include additional scope to their



field; (4) students pursuing advanced degrees (M.A. and Ph.D.); and (5) those entering a variety of occupations in urban affairs, government, social work, school administration, counseling, business, criminology, law, foreign service and other related areas.

The Chicano

studies option consists of 36 units, of which a minimum of 24 units must be upper-division. Students must consult with their advisers for an approved study plan. In addition, Chicano studies offers a minor consisting of 24 units.

#### **CREDENTIAL INFORMATION**

The Department of Chicano Studies offers course work leading to a CSUF Single Subject Waiver Program in Social Science. See the listing of required courses under the Department of Secondary Education.

The department also participates in the CSUF Generic Multiple Subjects Waiver. Information on requirements is available from departmental advisers and the Admission to Teacher Education office.

All students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Admission to Teacher Education Office and their academic adviser for assistance in planning their academic and professional preparation.

# BACHELOR OF ARTS IN ETHNIC STUDIES OPTION IN CHICANO STUDIES

A total of 36 units from the following courses are required:

Lower-Division (6 units minimum)

Chicano 106 Intro to Chicano Studies (3) Chicano 220 Mexican Heritage (3)

### Upper-Division (24 units minimum)

Required Courses (9 units)

(to be selected from the following courses)

Chicano 430 Evolution of Mexican Literature (3)

Chicano 431 The Chicano Child (3)

Chicano 440 Mexican Intellectual Thought (3)

Chicano 445 History of the Chicano (3)

Chicano 453 Mexico Since 1906 (3)

Upper-Division Writing Requirement (3 units)

English 301 Advanced College Writing (3)

### Electives (12 units minimum)

Chicano 101 Introduction to Ethnic Studies (3)

Chicano 102 Communication Skills (3)

Chicano 190 Survey of American History with Emphasis on Ethnic Minorities (3)

Chicano 302 Ancient Mexican Culture (3)

Chicano 304 Music of Mexico (3) (same as Music 304)

Chicano 305 The Chicano Family (3)

Chicano 306 Barrio Studies (3)

Chicano 315 Chicano/Latino Theater (3)

Chicano 316 The Chicano Music Experience (3)

Chicano 336 Main Trends in Spanish-American Literature (3)

Chicano 337 Contemporary Chicano Literature (3)

Chicano 360 Chicanos and the Law (3)

Chicano 403 Cultural Differences in Mexico and the Southwest (3)

Chicano 406 La Chicana (3)

Chicano 430 Evolution of Mexican Literature (3)

Chicano 431 The Chicano Child (3)

Chicano 432 The Chicano Adolescent (3)

Chicano 433 Mexican Literature Since 1940 (3)

Chicano 440 Mexican Intellectual Thought (3)

Chicano 445 History of the Chicano (3)

Chicano 450 The Chicano and Contemporary Issues (3)

Chicano 453 Mexico Since 1906 (3)

Chicano 460 The Chicano and Politics (3)

Chicano 480 The Immigrant and the Chicano (3)

Chicano 499 Independent Study (1-3)

### MINOR IN CHICANO STUDIES

The minor in Chicano Studies consists of 24 units in the following areas:

### Required lower-division courses (6 units)

Chicano 106 Intro to Chicano Studies (3)

Chicano 220 Mexican Heritage (3)

### Required upper-division courses (9 units)

(to be selected from the following)

Chicano 430 The Evolution of Mexican Literature (3)

Chicano 431 The Chicano Child (3)

Chicano 440 Mexican Intellectual Thought (3)

Chicano 445 History of the Chicano (3)

Chicano 453 Mexico Since 1906 (3)

### Approved electives

Nine units of approved course work in lower- and upper-division classes that are selected by the adviser.

### **GRADUATE STUDY**

Chicano Studies offers courses for advanced study in the following graduate degree programs:

Master of Arts in Social Sciences

Master of Science in Education:
Bilingual/Bicultural Concentration

Master of Arts in Spanish: Bilingual Studies Concentration

### **CHICANO STUDIES COURSES**

# 101 Introduction to Ethnic Studies (3)

(Same as Afro-Ethnic Studies 101)

### 102 Communication Skills (3)

The basic communication skills including oral and written expression. A unit on the mechanics of writing and reporting on a term paper.

### 106 Introduction to Chicano Studies (3)

The role of the Chicano in the United States. The Chicano's cultural values, social organization, urbanization patterns, and the problems in the area of education, politics and legislation.

# 108 Linguistics and Minority Dialects (3) (Same as Linguistics 108)

# 190 Survey of American History with Emphasis on Ethnic Minorities (3)

(Same as History 190 and Afro-Ethnic Studies 190. This course fulfills Title V, Statutory Requirements.)

### 220 Mexican Heritage (3)

The basic characteristics of the Mexican, especially the Chicano society and culture. From 1519 to the present. Emphasis on the arts, literature and history of Mexico and the Chicano in the United States.

### 302 Ancient Mexican Culture (3)

An historical and cultural survey of the principal pre-Columbian cultures of Mexico and their significance for Mexican society.

### 304 Music of Mexico (3)

(Same as Music 304)

### 305 The Chicano Family (3)

The Chicano family development as an American social institution. Historical and cross-cultural perspectives. The socio-, and psychodynamics of the Chicano family.

### 306 Barrio Studies (3)

Prerequisite: Chicano Studies 220 or consent of instructor. The major characteristics of the barrio. Supervised fieldwork in the barrio is required. Analysis of the barrio or agency will be made after fieldwork is completed. (2 hours lecture, 3 hours fieldwork)

### 315 Chicano/Latino Theater (3)

Prerequisites: Either upper-division standing, consent of instructor, or Theatre 100. Analysis of contemporary Chicano/Latino theater in relation to its historical evolution. Emphasis on plays, playwrights and theater groups expressing the Chicano/Latino experience. Extensive play reading. (Same as Theater 315)

### 316 The Chicano Music Experience (3)

Mexican folk and popular music and its relationship to the culture which produced it. The pre-Cortesian period to the present in Mexico and in the Southwestern United States.

### 336 Main Trends in Spanish-American Literature (3)

The main currents of Spanish-American literature emphasizing contemporary works. The relation between the artistic expression and the ideological values of the period.

### 337 Contemporary Chicano Literature (3)

Prerequisite: Chicano Studies 106, or 220, or consent of instructor. The modern Chicano writers in the United States: Allurista, Corky Gonzales, Octavio Romano, el treatro campesino and the major Chicano magazines and newspapers.

### 360 Chicanos and the Law (3)

The relationship between Chicanos and the legal and judicial system, including the administration of justice, Chicano-police relations, and Chicanos and the prison system. Guest speakers will be a regular feature.

# 403 Cultural Differences in Mexico & the Southwest (3)

The cultural conflicts in Mexico as seen by the contemporary thinkers of Mexico and the United States. Urban and rural problems.

### 406 La Chicana (3)

The cultural influences that the family, religion, economic status and community play upon the lifestyles, the values and the roles held by Chicanas. (Same as Women's Studies 406)

### 430 The Evolution of Mexican Literature (3)

Survey and analysis of the Nahautl, Mexican and Chicano literature from the pre-Columbian period to the present.

### 431 The Chicano Child (3)

The Chicano child from preschool through grade six. Motor, physical, social, intellectual and emotional growth and development and their effect on school adjustment and achievement. Observation of preschool and grade school children.

### 432 The Chicano Adolescent (3)

The Chicano adolescent's social, intellectual and emotional growth and development. The bicultural pressures from the barrio, family structure, school and achievement values.

### 433 Mexican Literature Since 1940 (3)

The literature of Mexico since 1940: Carlos Fuentes, Luis Spota, Rodolfo Usigli, Xavier Villarrutia, Juan Jose Arreola, Octavio Paz, Roberto Blanco Moheno and Luis G. Basurto.

### 440 Mexican Intellectual Thought (3)

Prerequisite: reading knowledge of Spanish and Chicano Studies 302 recommended. The emergence of the Chicano movement dealing with political, economic and sociological facets. The writings of the Nahautl, Spanish, Spanish-American, Chicano and contemporary writers.

### 445 History of the Chicano (3)

History of the Chicano from the pre-Columbian period to the present. The Chicanos' changing role in the United States, their cultural identity crisis and their achievements.

# 450 The Chicano and Contemporary Issues (3)

The socioeconomic and political problems confronting the Chicano including proposed solutions. The effect that social institutions have had on the Chicano community.

### 453 Mexico Since 1906 (3)

Prerequisite: upper division class standing. The Mexican Revolution of 1910 stressing the political, economic and social aspects as well as its contributions in the fields of art, literature and social reforms.

### 460 The Chicano and Politics (3)

Theory of urban politics and evaluation of issues that affect the Chicanos and American society. Evaluations and surveys will be made on political organizations in Hispanic-surnamed communities. (Same as Political Science 460)

### 480 The Immigrant and the Chicano (3)

Mexican immigration to the United States and its social, economic and political impacts on the Chicano and non-Chicano communities and other immigrant groups.

### 499 Independent Study (1-3)

Prerequisites: senior level and approval by the department chair and instructor(s) in charge of directing the study. An opportunity to do independent study, under the guidance of the faculty, on a subject of special interest to the student.

### 599 Independent Graduate Research (1-3)

Prerequisites: consent of instructor and classified status. Individual research for Chicano studies components in Master of Arts in Bilingual Studies (Spanish), Master of Science in Bilingual Education (Education) and related programs. Maximum of 3 hours credit.

# child & studies

### INTRODUCTION

The child and adolescent development major takes an interdisciplinary approach to the study of development from conception through adolescence that emphasizes interrelationships between the development of the person, the family, and the community. The educational objectives of the program are: (1) to expand students' knowledge of developmental changes and processes influencing development; (2) advance students understanding of scientific approaches to the study of

ment; and (3) develop students' competence in oral and written expression, quantitative reasoning, and critical thinking so that graduates will be prepared to work effectively with



and/or on behalf of children and adolescents.

The Bachelor of Science in Child and Adolescent Development prepares candidates to interact with culturally diverse youth and families and is designed for students interested in child and adolescent related professions. These include work in early childhood and elementary education, special education, child guidance and a variety of youth-related social service professions. In addition, the program provides appropriate preparation for graduate study in a variety of disciplines such as child development, counseling, developmental psychology, and social work.

### **ACADEMIC ADVISEMENT**

Academic advisement is provided through regularly-scheduled overview sessions, individual student advising appointments, and group advisement sessions prior to registration periods. Students should attend an overview session and see an academic advisor to develop a study plan the first semester in the major. Appointments are scheduled in Education Classroom 130F for overview sessions and individual advisement.

### BACHELOR OF SCIENCE IN CHILD AND ADOLESCENT DEVELOPMENT

The Bachelor of Science in Child Development requires the successful completion of a minimum of 51 units in the major consisting of required core classes, practicum, required classes from other departments, and advisement track courses. Transfer students may apply a maximum of 12 units of lower-division coursework taken at other institutions toward the total of 51 units for the major. Application of transfer units to major requirements must be approved by the academic advisor or the department head. A grade of C or better is required in all courses applied to the major.

# DEPARTMENT OF CHILD AND ADOLESCENT STUDIES

DIVISION OF CHILD, FAMILY AND COMMUNITY SERVICES

### **DIVISION CHAIR**

**Judith Ramirez** 

### **DEPARTMENT HEAD**

Sylvia Alva

### DEPARTMENT OFFICE

Education Classroom 105

### PROGRAMS OFFERED

Bachelor of Science in Child and
Adolescent Development
Minor in Child Development

### **FACULTY**

Sylvia Alva, Jacqueline Coffman, Leslie Grier, Diana Guerin, Ellen Junn, Robert McLaren, Sharon Milburn, Judith Ramirez, Mark Runco, Patricia Szeszulski, Robert Weisskirch

### Required Core Classes (18 units)

Students should take required core classes in the following sequence: (1) preparatory courses; (2) core developmental courses, and (3) the capstone course.

Preparatory Courses

Child/Adolescent Studies 300 Writing for Child Development Professionals (3) OR English 301 Advanced College Writing (3)

Child/Adolescent Studies 301 Inquiry and Methodology in Child Development (3)

Core Developmental Courses

Child/Adolescent Studies 320 Infancy and Early Childhood (3)

Child/Adolescent Studies 325 Middle Childhood (3)

Child/Adolescent Studies 330 Adolescence and Early Adulthood (3)

Capstone Course

Child/Adolescent Studies 490T Senior Seminar (3)

Practicum, required classes from other departments, and advisement track courses may be taken in any sequence.

### Practicum (3 units)

Take one of the following:

Child/Adolescent Studies 394 Practicum Seminar (2) and

Child/Adolescent Studies 394L Practicum in Child Development (1)

OR Child/Adolescent Studies 494

Practicum Seminar: Child, Family, and Community Involvement (2) and

Child/Adolescent Studies 494L Practicum in Child, Family, and Community involvement (1)

OR Ed Elm 315A Introduction to Elementary Teaching Lecture (2) and

Ed Elm 315B Introduction to Elementary Teaching Fieldwork (1)

### Required Classes From Other Departments (12 Units)

Biology

Biology 305 Human Heredity and Development (3)

Cultural Diversity Class - Take one of the following:

Afro 309 The Black Family (3) Afro 310 Black Women in America (3) Afro/Human Services 311 Intracultural Socialization Patterns (3)

American Studies 301 The American Character (3)

American Studies 450 Women in American Society (3)

Anthro 450 Culture and Education (3)

Chicano 305 The Chicano Family (3)

Chicano 431 The Chicano Child (3)

Sociology 431 Minority Group Relations (3)

Speech Comm 320 Intercultural Communication (3)

Sociology - Take one of the following:

Sociology 451 Sociology of the Family (3)

Sociology 453 Child in American Society (3)

Special Education - Take one of the following:

Special Ed 371 Exceptional Individual (3)

Special Ed 400 Early Childhood Special Education (3)

### Required Advisement Track (18 units)

In addition to the 33-unit core, the child and adolescent development major requires each student to select, in consultation with an advisor, an 18 unit advisement track in the area of specialization. Examples of advisement tracks include child care/pre-kindergarten education, elementary education, special education and preparation for master's or doctoral degree work in fields other than education.

### Multiple Subject (Elementary School) Teaching Credential Preparation

Completion of either the Multiple Subject Matter Preparation Program or passing scores on the Multiple Subject Assessment for Teachers (MSAT) test is a requirement for the Multiple Subject (Elementary) Teaching Credential. Visit or call the Center for Careers in Teaching (University Hall 178) for further information.

# THE MINOR IN CHILD AND ADOLESCENT DEVELOPMENT

For a minor in Child and Adolescent Development, 21 units are required:

### Core Courses (9 units)

Child/Adolescent Studies 301 Inquiry and Methodology in Child Development (3)

or approved alternate

Two of the following:

Child/Adolescent Studies 320 Infancy and Early Childhood (3) Child/Adolescent Studies 325 Middle Childhood (3)

Child/Adolescent Studies 330 Adolescence and Early Adulthood (3)

### Practicum (3 units)

Take one of the following:

Child/Adolescent Studies 394 Practicum Seminar (2) and

Child/Adolescent Studies 394L Practicum in Child Development (1)
OR Child/Adolescent Studies 494

Practicum Seminar: Child, Family, and Community Involvement (2) and Child/Adolescent Studies 494L Practicum

in Child, Family, and Community

Involvement (1)

OR Ed Elem 315A Introduction to

Elementary School Teaching: Lecture (2) and

Ed Elem 315B Introduction to Elementary School Teaching: Fieldwork (1)

Three of the following (9 units required)

Afro 309 The Black Family (3)

Afro 311 Intracultural Socialization Patterns (3)

Art 380 Art and Child Development (3)

Biology 305 Human Heredity and Development (3)

Chicano 305 The Chicano Family (3)

Chicano 431 The Chicano Child (3)

Child/Adolescent Studies 312 Human Growth and Development (3) OR Psychology 361 Developmental Psychology (3)

Child/Adolescent Studies 490T Senior Seminar in Child Development (3)

Criminal Justice 425 Juvenile Justice Administration (3)

Dance 471 Creative Dance for Children (3)

English 433 Children's Literature (3)

Kinesiology 386 Movement and the Child (3)

Music 333 Music and Child Development (3)

Music 433 Music in Early Childhood (3)

Psychology 311 Educational Psychology (3)

Psychology 464 Advanced Developmental Psychology (3)

Sociology 413 Juvenile Delinquency (3)

Sociology 451 Sociology of the Family (3)

Sociology 453 Child in American Society (3)

Special Ed 371 Exceptional Individual (3)

Special Ed 400 Early Childhood Special Education (3)

Special Ed 421 Working with Parents of Children with Exceptional Needs (3)

Speech Comm 307 Speech and Language Development (3)

Theatre 402A Dramatic Activities for Children (3)

# CHILD AND ADOLESCENT STUDIES COURSES

### 210 Introduction to Child Development (3)

Introduction to the field of child development, including: historical and theoretical overviews; survey of programs and services for children, adolescents, and young adults; introduction to observational techniques; and exploration of professional opportunities, organizations, and publications.

### 300 Writing for Child Development Professionals (3)

Prerequisite: Psychology 101 or equivalent. Styles of written communication common to child development programs and services. Reporting on theories and research to multiple audiences (e.g. other professionals, parents, community groups, etc.). Meets upper-division baccalaureate writing course requirement for child development majors.

### 301 Inquiry and Methodology in Child Development (3)

Prerequisite: Psychology 101. Provides framework and methods necessary for interdisciplinary study of child development. Includes conducting library research, reading and writing scientific reports, using descriptive and inferential statistics, developing computer literacy, and exploring developmental methodology and theory. (3 hours lecture, 2 hours laboratory)

### 312 Human Growth and Development (3)

Prerequisite: Psychology 101 or consent of instructor. Human growth and development, childhood, adolescence and middle and old age. Mental, social, emotional andphysical development.

### 320 Infancy and Early Childhood (3)

Prerequisite: Child/Adolescent Studies 301 or equivalent. Research, theories and their application to physical, cognitive, social, emotional, and personality development during prenatal, neonatal, infant, and early childhood periods, through six years.

### 325 Middle Childhood (3)

Prerequisite: Child/Adolescent Studies 301 or equivalent. Physical growth, personality development and social participation during middle childhood. Patterns of cognitive growth and emotional adjustment.

### 330 Adolescence and Early Adulthood (3)

Examination of influences on human development before, during and following adolescence. Community resources and services for adolescents and their families. Consequences of adolescent experiences forlater development.

### 394 Practicum Seminar (2)

Prerequisite: one of the following: Child/Adolescent Studies 320, 325, or 330. Co-requisite: Child/Adolescent Studies 394L. Classroom analysis of field experience focusing on linkages between theory and practice and skills and techniques of child development professionals. May be repeated for credit for a total of six units.

### 394L Practicum in Child Development (1)

Co-requisite: Child/Adolescent Studies 394. Supervised field experience in agencies, institutions and organizations serving children and families. Minimum of four hours per week; total of 120 hours required for the major. May be repeated for a total of three units of credit. Credit/No Credit grade option only.

### 449 Seminar on Child Abuse (3)

(Same as Counseling 449)

### 490T Senior Seminar in Child Development (3)

Prerequisites: senior standing
Child/Adolescent Studies 301 and two of the
following: Child/Adolescent Studies 320,
325 and 330. Systematic study of theory,
methods, and findings concerning a specific
developmental topic. May be repeated for
credit under different topic.

# 494 Practicum Seminar: Child, Family, and Community Involvement (2)

Prerequisite: one of the following courses: Child/Adolescent Studies 312, 325, 330, or Psychology 361. Co-requisite: Child/Adolescent Studies 494L. Analysis of field experiences focusing on linkages between theory and practice. Knowledge, skills, and dispositions important to professionals working with parents and families in school and community settings. Emphasis on addressing needs of culturally diverse families.

# 494L Practicum in Child, Family, and Community Involvement (1)

Co-requisite: Child/Adolescent Studies 494. Supervised field experience in organizations or agencies serving parents and families. Minimum of four hours per week: total of 120 hours required for the major. Credit/No credit grade option only.

### 496 Student-to-Student Tutorials (1-3)

Prerequisites: a 3.0 or higher grade-point average and simultaneous enrollment in the course being tutored or previous enrollment in a similar course or its equivalent. Consult "University Curricula" section of this catalog for more complete course description.

### 499 Independent Study (1-3)

Individual research project, either library or field, under the direction of a Child Development faculty member. May be repeated for a maximum of six total units of credit. Only three units may be taken in a single semester.

# CIVIL CINCLE CIVIL CINCLE CIVIL CINCLE INTRODUCTION The civil engine structural, geotechengineering. Mode design, and studen "Structural" en tures and many of sis, the forces that

### **DEPARTMENT HEAD:**

Chandra S. Putcha

### **DEPARTMENT OFFICE:**

Engineering 100

### **PROGRAMS OFFERED:**

Bachelor of Science in Civil Engineering
Emphasis in Architectural Engineering
Master of Science in Civil Engineering
Concentration in Environmental
Engineering

### FACULTY

Richard Brock, Pinaki Chakrabarti, Jeff Kuo, George Lin, Chandrasekhar Putcha, Dindial Ramsamooj, Mahadeva Venkatesan

### ADVISERS

Undergraduate adviser: Pinaki R. Chakrabarti Graduate adviser: Chandra S. Putcha The civil engineering program at CSUF includes the fields of engineering mechanics and structural, geotechnical, hydraulic, environmental, construction, transportation, and architectural engineering. Modern civil engineering practices rely heavily upon computer-aided analysis and design, and students at CSUF use both microcomputers and the mainframe computer.

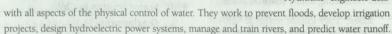
"Structural" engineers are designers of buildings, bridges, dams, power plants, offshore structures and many other kinds of systems. These engineers determine, usually by computer analysis, the forces that a structure must resist, the appropriate materials, and the possible structural

types. Structural engineers usually work with a team that includes architects, mechanical and electrical engineers, contractors, and the owner of the project.

"Engineering Mechanics" courses offered in this department provide strong support for research, consulting and teaching in many fields of civil engineering.

"Geotechnical" engineers analyze the properties of soils and rocks that affect the behavior of structures. They evaluate the potential settlements of buildings, the stability of slopes and fills, and the effects of earthquakes. They take part in the design and construction of foundations, including those of offshore platforms, tunnels and dams.

"Hydraulic" engineers deal



"Architectural" engineering is a subtle combination of the art of architecture and the science of engineering. The architect conceives of structures as an art form, and relies upon the structural engineer to translate his concepts of beauty into structural reality. The architectural engineer has the training to interact with both architects and engineers or to work on his own in designing structures that combine both strength and beauty.

"Construction engineering and management" is a wide ranging specialization that uses both technical and management skills to plan and build public and private projects and commercial developments.

"Environmental" engineers are concerned with the design and control of projects related to environmentally-sensitive areas (primarily air pollution and hazardous waste management).

They also regulate and enforce many federal and state laws to control damage to the environment.

"Transportation" engineers are concerned with the planning, design, and control of projects related to transportation of people and goods. They also regulate and enforce many federal and state laws related to transportation.

The undergraduate engineering program is designed to impart knowledge of mathematics and natural sciences to students so that they learn to use the forces of nature and materials economically while maintaining engineering ethics and high professional standards.



One of the major objectives of this program is to provide design experience to the students gradually from the very beginning years until they graduate, through a variety of courses. During this time, they also learn about safety, reliability, ethics and socially sensitive problems.

The graduate engineering program is designed for specialization in the areas of structures, engineering mechanics, geotechnology, hydraulics, construction and management and environmental engineering.

# BACHELOR OF SCIENCE IN CIVIL ENGINEERING

### Mathematics and Science Foundation Courses (32 units)

See information under "Departments of Engineering" section.

### Engineering Core Courses (24 units)

See information under "Departments of Engineering" section.

### Upper-Division Writing Requirement

In addition to the Examination in Writing Proficiency which is to be taken as soon as 60 units are completed, six units from the following courses are required and must be passed with a grade of C or better. The laboratory reports are graded on English composition as well as content.

EG-ME 306A Unified Laboratory (1)

EG-CE 324L Soil Mechanics Laboratory (1)

EG-CE 325L Structural Analysis Laboratory (1)

EG-CE 377 Civil Engineering Materials
Lab (1)

EG-CE 428L Engineering Hydraulics Lab (1)

EG-CE 431L Advanced Structural Lab (1)

EG-CE 463L Precast and Prestressed Concrete Design Lab (1)

EG-CE 465 Planning & Control of Engineering Construction Projects (3)

EG-CE 468 Engineering Construction (3)

EG-CE 495 Civil Engineering Professional Practice (1)

# Required Courses in Civil Engineering (37 units)

EG-EE 203L Electric Circuits Laboratory (1)
OR EG-CE 206 Computer Aided
Architectural and Civil Engineering
Drafting (1)

EG-CE 214 Engineering Surveying (2)

EG-CE 214L Engineering Surveying
Laboratory (1)

EG-CE 301 Mechanics of Materials (3)

EG-CE 324 Soil Mechanics (3)

EG-CE 324L Soil Mechanics Laboratory (1)

EG-CE 325 Structural Analysis (3)

EG-CE 325L Structural Analysis Laboratory (1)

EG-CE 330 Computer Applications in Civil Engineering (3)

EG-CE 377 Civil Engineering Materials
Lab (1)

EG-CE 408 Reinforced Concrete Design (3)

EG-CE 418 Foundation Design (3)

EG-CE 428 Engineering Hydraulics (3)

EG-CE 428L Engineering Hydraulics Lab (1)

EG-CE 430 Structural Steel Design (3)

EG-CE 494L Civil Engineering Structural Laboratory (1)\*

EG-CE 494 Design of Civil Engineering Structures (3)\*

EG-CE 495 Civil Engineering Professional Practice (1)

\*EG-CE 494 and 494L must be taken together.

# Technical Electives in Civil Engineering (9 units minimum)

Before enrolling in any elective course, approval of the adviser must be obtained. Technical electives must include EG-CE 441 or 465 or 466 or 468.

EG-CE 411 Structural Dynamics (3)

EG-CE 431L Advanced Structural Laboratory (1)

OR EG-CE 463L Precast and Prestressed Concrete Design Lab (1)

EG-CE 432 Computer-Aided Design in Structural Engineering (3)

EG-CE 435 Design of Hydraulic Structures (3)

EG-CE 436 Engineering Hydrology (3)

EG-CE 441 Environmental Engineering (3)

EG-CE 463 Precast and Prestressed Concrete Design (3)

EG-CE 465 Planning and Control of Engineering Construction Projects (3)

EG-CE 466 Public Transit Systems Planning and Operations (3)

EG-CE 468 Engineering Construction (3)

EG-CE 493 Structural Systems for Buildings (3)

EG-CE 497 Senior Projects (1-3)

EG-CE 499 Independent Study (1-3)

# ARCHITECTURAL ENGINEERING EMPHASIS

Mathematics and Science Courses (32 units)

Engineering Core Courses (24 units)

### Required Civil Engineering Core (30 units)

EG-EE 203L Electric Circuits Laboratory (1)
OR EG-CE 206 Computer-Aided
Architectural and Civil Engineering
Drafting (1)

EG-CE 214 Engineering Surveying (2)

EG-CE 214L Engineering Surveying
Laboratory (1)

EG-CE 301 Mechanics of Materials (3)

EG-CE 324 Soil Mechanics (3)

EG-CE 324L Soil Mechanics Laboratory (1)

EG-CE 325 Structural Analysis (3)

EG-CE 325L Structural Analysis Lab (1)

EG-CE 377 Civil Engineering Materials Laboratory (1)

EG-CE 408 Reinforced Concrete Design (3)

EG-CE 418 Foundation Design (3)

EG-CE 430 Structural Steel Design (3)

EG-CE 494 Design of Civil Engineering Structures (3)\*

EG-CE 494L Civil Engineering Structural Laboratory (1)\*

EG-CE 495 Civil Engineering Professional Practice (1)

\*EG-CE 494 and 494L must be taken together.

### Core Courses for the Emphasis in Architectural Engineering (13 units)

EG-CE 431L Advanced Structural Laboratory (1)

OR EG-CE 463L Precast and Prestressed Concrete Design Lab (1)

EG-CE 432 Computer-Aided Design in Structural Engineering (3)

EG-CE 441 Environmental Engineering (3)

EG-CE 493 Structural Systems for Buildings (3)

OR EG-CE 463 Precast and

Prestressed Concrete Design (3)

EG-CE 496 Architectural Design (3)

# Technical Electives for the Emphasis in Architectural Engineering (3 units)

EG-CE 465 Planning and Control of Engineering Construction Projects (3)

EG-CE 466 Public Transit Systems Planning and Operations (3)

EG-CE 468 Engineering Construction (3)

# MASTER OF SCIENCE IN CIVIL ENGINEERING

The Master of Science degree in Civil Engineering is intended to meet the needs of students who wish to prepare for careers in areas such as construction and project management, design and analysis of complex systems (including structures such as tall buildings and bridges), environmental engineering, consulting, and research. This program also provides excellent preparation for doctoral studies.

The program provides advanced study within the area of civil engineering and allows students to elect coursework, with adviser approval, in the areas of structural engineering, hydraulics/hydrology, geotechnical engineering, engineering mechanics, construction engineering and management or environmental engineering.

Graduates from the M.S. program have obtained employment in various fields including manufacturing, construction, business, education and government.

### Admission Requirements

To qualify for admission in conditionally classified standing, applicants must meet the following University and departmental requirements:

- 1. Bachelor's degree from a regionally accredited institution.
- Bachelor's degree in Civil Engineering from an institution accredited by the Accreditation Board for Engineering and Technology (ABET).
- 3. Minimum grade-point average of 2.5 in the last 60 semester units.
- Good standing at the last institution attended.

Students meeting the above requirements will be admitted to the graduate program in Civil Engineering and will be advanced to classified standing immediately after filing an adviser-approved study plan in the Civil and Environmental Engineering Department office.

Students not meeting the above require-

ments may be admitted at the discretion of the department head and will be required to take an additional six or more units of adviser-approved prerequisite coursework. The student must demonstrate potential for graduate study by earning a GPA of 3.0 or higher in these prerequisite courses.

Any student entering the Master of Science degree program without a B.S. in Civil Engineering will also be required to complete deficiency courses prior to beginning coursework for the master's degree.

Graduate and postbaccalaureate students who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must receive a minimum score of 550 on the Test of English as a Foreign Language (TOEFL).

The Civil and Environmental Engineering Department does not require the Graduate Record Exam (GRE).

### Classified Standing

Students meeting the following additional requirements will be advanced to classified standing and are eligible to take graduate courses for which they are qualified.

- Completion of all deficiency work specified by the graduate adviser with a grade of B or better.
- Development of an approved study plan.
   Before completing nine units at CSUF toward the M.S. degree, the student must meet with an adviser for preparation of a study plan which must be approved by the department head and Office of Graduate Studies.
- Fulfillment of the University writing requirement prior to completing nine units at CSUF toward the M.S. degree.
   Students must demonstrate writing ability commensurate with the baccalaureate degree by successfully completing one of the following;
  - A. An upper-division writing requirement at any CSU campus
  - B. An upper-division writing course from another university which is equivalent to a course satisfying the CSUF Upper-Division Writing Requirement. Equivalency must be certified by the department head
  - C. Cal State Fullerton Examination in Writing Proficiency (EWP)

D. A CSUF upper-division or graduatelevel course or courses certified as meeting the writing requirement and is approved by the department head. The grade received must be a C or better.

### Study Plan

The study plan consists of a minimum of 30 units of adviser-approved upper-division or graduate-level coursework which must be completed with an overall grade-point average of at least 3.0. At least half the units required for the degree must be in approved graduate (500-level) courses.

### Required Courses (6 units)

EG-GN 403 Computer Methods in Numerical Analysis (3) and an additional adviser-approved math-oriented course (3) or six units adviser approved electives.

### Concentration Courses (15 units)

A student is required to select a minimum of 15 units in Civil Engineering. These units may be 400-level (subject to approval by the department head) and 500-level courses and are selected according to the students areas of interest. Coursework may focus on the following areas: Engineering Mechanics, Geotechnical Engineering, Hydraulics/ Hydrology, Structural Engineering, and Construction Engineering and Management. Students interested in Environmental Engineering should refer to the study plan for this concentration (see text following this section).

### Other Courses (9 units)

Elective units should be taken in Civil Engineering or a related engineering field and are subject to adviser approval.

### Exam/Thesis/Project Option

Subject to approval by the department head, students may select one of the following options for final review by a department committee:

Oral comprehensive examination
OR EG-CE 598 Thesis
OR EG-CE 597 Project

Students enrolling in less than six units of Independent Study/Thesis/Project will be required to take an oral comprehensive exam. Students enrolling in six units of thesis or project may defend their thesis or project instead of taking an oral comprehensive exam.

### Advancement to Candidacy

Advancement to candidacy and completion of requirements for the degree include:

- Filing a graduation check prior to the beginning of the final semester (deadlines are listed in the class schedule).
- 2. Completion of study plan coursework with a minimum overall GPA of 3.0.
- Successful completion of a comprehensive examination or oral defense of a thesis or project.
- Recommendation by the Civil and Environmental Engineering Department faculty and Office of Graduate Studies.

# CONCENTRATION IN ENVIRONMENTAL ENGINEERING

Study Plan

### Required Concentration Courses (15 units)

EG-CE 481 Solid Waste Technology and Management (3)

EG-CE 482 Liquid Waste Technology and Management (3)

Adviser-approved Environmental Engineering courses which may include Thesis, Project or Independent Study (9)

### Electives (15 units)

Adviser-approved electives must include a minimum of six units in non-Environmental Engineering courses.

Students enrolling in less than six units of Independent Study/Thesis/Project will be required to take an oral comprehensive exam. Students enrolling in six units of thesis or project may defend their thesis or project instead of taking an oral comprehensive exam.

### CIVIL AND ENVIRONMENTAL ENGINEERING COURSES

### 201 Statics (3)

Prerequisites: Math 150B and Physics 225. Vectorial treatment of statics of particles and rigid bodies; freebody diagrams; applications to problems of equilibrium (two and three dimensions) of structural and mechanical force systems; trusses, frames and machines. Friction problems; centroids and moments of inertia. (CAN ENGR 8)

### 206 Computer-Aided Architectural and Civil Engineering Drafting (1)

Prerequsite: EG-ME 102. Architectural and civil engineering drawing with the aid of computer-aided drafting techniques; grading plans, engineering drawings (including standard structural, electrical and hydraulic details) of buildings, bridges, dams and civil engineering structures; Bill of Materials. (3 hours laboratory)

### 214 Engineering Surveying (2)

Corequisite: EG-CE 214L. Basis of plane surveying; distance measurement using tapes and EDM; levelling, measurement of angles and directions; traverse and topographic survey and computations; applications in highway curves, construction surveys and land surveys; principles of stadia.

### 214L Engineering Surveying Laboratory (1)

Corequisite: EG-CE 214. Field practice of measurement of distance, difference of elevation, and horizontal and vertical angles using tapes, EDM, automatic levels, theodolites and total stations. (3 hours laboratory)

### 301 Mechanics of Materials (3)

Prerequisites: Math 250A and EG-CE 201. Stress and deformation analysis for axial load, torsion, flexure, and combined forces; analysis of simple statically indeterminate structures; deflection and stress analysis of beams; stability of columns; strain energy and ultimate resistance; interactive relationships between analysis and design.

### 302 Dynamics (3)

Prerequisites: Math 250A and EG-CE 201. Kinematics and kinetics of particles and rigid bodies, kinetics of rigid bodies in three dimension, Newton's laws, work and energy, impulse and momentum. Solution of problems using vector approach.

### 324 Soil Mechanics (3)

Prerequisite: EG-CE 301. Soil properties and soil action as related to problems encountered in engineering structures; consolidation, shear strength, stability and lateral earth pressures.

### 324L Soil Mechanics Laboratory (1)

Prerequisites: English 101 and EG-CE 324. Behavior and properties of soils; application to foundation design, liquefaction and seepage.

### 325 Structural Analysis (3)

Prerequisite: EG-CE 301. Analysis of forces and displacements in statically determinate and indeterminate elastic structures by force and displacement methods; approximate methods of analysis. Influence lines and applications; matrix formulation of structural analysis and computer applications; introduction to structural design.

### 325L Structural Analysis Laboratory (1)

Prerequisites: English 101 and EG-CE 325. Principles of model analysis and similitude; influence lines for reactive and internal forces; generalized displacements of statically indeterminate structures; nonprismatic members. (3 hours laboratory)

# 330 Computer Applications in Civil Engineering (3)

Prerequisites: EG-GN 205, EG-CE 214, 324 and 325. Application of computer programming to the solution of analytical and design problems in various branches of Civil Engineering.

# 331 Environmental Pollution Problems and Solutions (3)

(Same as Chemistry 331)

# 377 Civil Engineering Materials Laboratory (1)

Prerequisites: EG-CE 324 and 325.
Behavior and properties of most common materials, e.g. steel, concrete, wood, masonry and asphalt; mix design of asphalt and concrete; determination of strain and stress using strain gages; specimen testing according to ASTM; material properties determination; safety, reliability, and design considerations. (3 hours laboratory)

### 408 Reinforced Concrete Design (3)

Prerequisite: EG-CE 325. Corequisite: EG-CE 377 or equivalent. Design for bending, shear, axial force, torsion and combined loading. Beam, columns, slab and foundation design for ultimate strength and serviceability requirements. Prestressed concrete design. Safety, reliability and cost considerations. Design project conforming to latest ACI code. Professional computer program.

### 411 Structural Dynamics (3)

Prerequisites: EG-CE 325 and EG-GN 308. Free and forced vibrations of discrete and continuous systems; matrix formulation and normal coordinates analysis; response of structures to impulse and earthquake loads; application to structural design problems and comparison with code prescribed forces.

### 418 Foundation Design (3)

Prerequisites: EG-CE 324 and 408. Design of footings and retaining walls; mat and piled foundations for structures; design project to standards of professional practice using latest codes and standards. Consideration for safety, reliability and cost.

### 428 Engineering Hydraulics (3)

Prerequisite: EG-CE 302. Incompressible fluid flow in closed conduits and open channels; hydrostatics, energy, and hydraulic grade lines; momentum, friction formulas, pipelines, uniform flow, and water surface profiles; design of pipes and open channels; computer solutions.

### 428L Engineering Hydraulics Laboratory (1)

Prerequisites: English 101 and EG-CE 428. Introduction to experimental hydraulics in open channel and pipe flows including measurements of discharge, depth, velocity, force and friction coefficients; hydraulic model laws and report writing. (3 hours laboratory)

### 430 Structural Steel Design (3)

Prerequisite: EG-CE 325. Corequisite: EG-CE 377 or equivalent. Design for bending, torsion, shear, axial forces, combined loadings; design of built-up girders, composite construction; design of shear and moment connections; design project using professional practice standards; LRFD method; safety, reliability and cost considerations; professional computer program.

### 431L Advanced Structural Laboratory (1)

Prerequisites: EG-CE 325L and either EG-CE 408 or EG-CE 430. Fundamentals of earthquake engineering and soil structure interaction; design of lateral bracing for model buildings. (3 hours laboratory)

# 432 Computer-Aided Design in Structural Engineering (3)

Prerequisites: EG-GN 205, EG-CE 325 and 408. Application of computer-aided design techniques with automated graphics to the design of civil engineering structures; design project to the standards of professional practice. (2 hours lecture, 3 hours laboratory)

### 435 Design of Hydraulic Structures (3)

Prerequisite: EG-CE 428. Applications of hydraulic principles to design of various structures including spillways, energy dissipators, outlet works, storm drains, culverts and water distribution systems; use of computers in design process.

### 436 Engineering Hydrology (3)

Corequisite: EG-CE 428. Hydrologic cycle with applications to hydrologic design of engineering structures; rainfall, stream flow, ground water, surface runoff, hydrographs, flood routing, frequency distributions and design hydrographs.

### 441 Environmental Engineering (3)

Prerequisite: Biology 101, EG-CE 324, EG-CE 428 and senior standing in Engineering. Planning and control of the environment, wastewater treatment and disposal, solid waste management, air pollution; radiation protection; housing and residential environment.

# 463 Precast and Prestressed Concrete Design (3)

Prerequisite: EG-CE 408. Prestressed concrete design and analysis for conventional and lateral loading; design of reinforced and prestressed structural and architectural elements; safety and economy. Connection design for earthquake and wind loadings; design projects using professional practice standards including latest codes.

### 463L Precast and Prestressed Concrete Design Lab (1)

Prerequisites: EG-CE 463; EG-CE 408 or equivalent. Behavior of prestressed and reinforced concrete beams subjected to the different types of loadings; observation of elastic and ultimate strength behavior, deflection crack propagation and collapse; observation of prestressing operation and camber. (3 hours laboratory)

# 465 Planning and Control of Engineering Construction Projects (3)

Prerequisites: senior standing. Overview of construction project management; construction scheduling fundamentals: bar charts, CPM, PERT; schedule control: manual vs. computer systems, reports, schedule maintenance; cost control: code of accounts, control base, budgets, forecasting, reports, computer systems; applications in construction projects.

# 466 Public Transit Systems Planning and Operations (3)

Prerequisite: senior standing in Civil Engineering. Urban passenger transportation modes, paratransit, special modes, vehicles characteristics and motion, highway transit mode, rail transit mode new concepts, transit system performance (capacity, productivity, efficiency and utilization, organization and financing).

### 468 Engineering Construction (3)

Prerequisite: EG-CE 408 or equivalent. Corequisite: EG-CE 418. Engineering construction planning equipment and methods; construction management; critical path method; construction of buildings, bridges, highways, foundations and dams; consideration for safety and reliability.

### 481 Solid Waste Technology and Management (3)

Prerequisite: EG-CE 441 or equivalent. Process dynamics and kinetics; thermal, physical, chemical and biological treatment operations; immobilization process; residual management and treatment process train selection.

# 482 Liquid Waste Technology and Management (3)

Prerequisite: EG-CE 441 or equivalent.

Process dynamics; reactions and kinetics; reactor engineering and process design; pretreatment operations and physical, chemical and biological treatment operations; residual management and treatment process train selection.

### 493 Structural Systems for Buildings (3)

Prerequisites; EG-CE 408 or 430.
Corequisite: EG-CE 418. Building structural concepts and systems and their behavior under loads. Foundation systems; roof, floor, wall systems; construction safety and cost considerations; design project to standards of professional practice; use of latest building codes and standards and computer application. (2 hours lecture and 3 hours laboratory)

# 494 Design of Civil Engineering Structures (3)

Prerequisites: EG-CE 408 and 430.
Corequisites: EG-CE 418 and 494L. Timber, reinforced masonry, reinforced concrete and steel design; use of Uniform Building Code and standards; design of buildings and bridges; design projects to standards of professional practice; reliability, safety and cost consideration; computer application. (2 hours lecture; 3 hours laboratory)

### 494L Civil Engineering Structural Laboratory (1)

Corequisite: EG-CE 494. Design of bridges according to AASHTO code; design project to the standards of professional practice. (3 hours laboratory)

# 495 Civil Engineering Professional Practice (1)

Prerequisite: senior standing. Discussion of civil engineering as a profession and the civil engineer as a professional, career opportunities in private sectors and government, office and field practice, professional growth and development, project management, business management and opportunities, ethics and aesthetics, case studies.

### 496 Architectural Design (3)

Prerequisites: EG-CE 408 or 430 or senior standing or consent of instructor and department head. History of architectural design. Systems based design process: aesthetic, functional, environmental, and behavioral aspects. Urban planning and design. Case studies. Architectural design project to the standards of professional practice.

### 497 Senior Projects (1-3)

Prerequisites: senior standing in engineering and formal approval by adviser and department head; independent design projects; formal report to be submitted after completion of project work.

### 499 Independent Study (1-3)

Prerequisites: senior standing in engineering and formal approval by adviser and department head. Special topics in civil engineering; formal report to be submitted after completion of independent study.

### 501 Analytical Methods for the Design of Civil Engineering Systems (3)

Prerequisite: graduate standing or equivalent. Application of linear and dynamic programming principles to the design of pipelines, irrigation systems, water-resources and traffic-flow control problems; probabilistic network analysis; first order and advanced first order second moment reliability methods; probabilistic design.

### 509 Theory of Plates and Shells (3)

Prerequisite: EG-ME 438 or equivalent. Theory of thin plates subjected to transverse loads; analysis of plates of circular, rectangular and other shapes; theory of thin shells. Shells of revolution; shells of translation.

### 510 The Finite Element Method (3)

Prerequisites: EG-CE 517 and 533 or equivalent. Formulation of finite elements for analysis of plane stress and strain problems, axisymmetric bodies, plates and shells; conforming and non-conforming shape functions; computer applications to complex structural systems under static and dynamic loads.

### 515 Geo-Environmental Engineering (3)

Prerequisite: EG-CE 436 or equivalent. Geo-environmental properties and soil action related to problems encountered in waste management engineering; physico-chemical soil properties, shear strength as applied to landfill design and lateral earth pressures on braced excavation; contaminant migration and partitioning in unsaturated soils.

### 517 Theory of Elasticity (3)

Prerequisite: EG-ME 438 or equivalent. Analysis of stress and strain; Equations of elasticity; extension, torsion and flexure of beams; two-dimensional elastostatic problems; variational methods and energy theorems. Elementary three-dimensional elastostatic problems; introduction to thermoelasticity and wave propagation.

### 532 Earthquake Engineering (3)

Prerequisites: EG-CE 411 and 533 or equivalent. Earthquake motions, response spectra, computational methods and computer applications for response of structural systems, energy absorption capacity of materials and structural components, soil structure interaction, seismic design and evaluation of current building codes.

# 533 Matrix Methods of Structural Analysis (3)

Prerequisites: EG-CE 325 and EG-GN 403. Matrix formulation of structural analysis using the direct stiffness approach, comparison of flexibility and stiffness approaches; computer aided analysis of complex structural systems under static and dynamic loads; stability analysis; introduction to the finite element method.

### 534 Construction Methods and Equipment for Buildings (3)

Prerequisites: EG-CE 408 and 430. Methods and equipment for construction of high-rise buildings, space structures, folded plates, shells, and suspension systems; modularization; quality control and construction failures.

### 537 Groundwater and Seepage (3)

Prerequisite: EG-CE 436 or equivalent. Equations governing flow of liquid in porous media; seepage through dams and under structures, flow in confined and unconfined aquifers, steady and unsteady flow, well fields, flow nets, computer solutions, sea water intrusion, recharge, groundwater pollution.

### 538 Construction Methods and Equipment for Heavy Construction Engineering (3)

Prerequisites: EG-CE 408 and 418. Methods and equipment for construction of foundations, highways, airfields, bridges, ports, harbors, dams, nuclear power plants and industrial facilities; quality control and construction failures.

# 539 Preconstruction Design Evaluation(3)

Prerequisites: EG-CE 534 or equivalent. Cost benefit, preconstruction scheduling, and constructibility modifications in design, specifications and construction methods; Value Engineering.

# 540 New Technology and Innovations in Construction Engineering (3)

Prerequisite: EG-CE 534 or 538 or equivalent. Automation and robotics in construction; new materials, construction equipment and methods for construction of dams, highways, and buildings; latest computer applications in construction.

### 546 Coastal Engineering (3)

Prerequisites: EG-CE 418 and EG-CE 436 or equivalent. To introduce theories and applications in coastal engineering, coastal hydrodynamics, coastal development, planning of ports, and conceptual engineering design, tide, wave, wind, currents, littoral drift, beach erosion and sedimentation, coastal geomorphology; port planning, location, design factors and engineering features; preparation of construction, dredging, anchoring and dewatering; effect of coastal engineering on environment.

### 549 Theory of Elastic Stability (3)

Prerequisite: EG-CE 509, 517 or equivalent. Critical buckling loads of columns, beam-columns, frames, plates, and shells; lateral stability of beams; torsional buckling of open wall sections.

# 550 Major Commercial Project Development and Management (3)

Prerequisite: Any 400-level Management course approved by the Civil and Environmental Engineering Department Head. Process of major commercial project development; macroeconomics aspects; project initiation and implementation, construction management systems, schedule, cost and quality control, control of long-lead equipment and materials; construction disputes and claims; case studies.

### 556 Construction Cost Control, Scheduling and Planning (3)

Prerequisite: EG-CE 465 or 468 or equivalent. Systems approach for estimating, scheduling, cost comparison, risk analysis and cost control; project feasibility studies and alternative approaches; project control, baseline establishment, cost and claim management.

# 557 Total Cost Management of Capital Projects (3)

Prerequisite: EG-CE 465 or equivalent.

Management and cost control of large capital projects; capital cost estimation, value prediction and control, cost and schedule control and management of mega projects.

### 559 Environmental and Public Transportation Regulation (3)

Prerequisite: EG-CE 441 or equivalent. Environmental regulations, clean air act, intermodal surface transportation efficiency act of 1991, Federal Transit Administration project planning guidelines, planning for public transit and environmental requirement, development of required environmental documents; procedure for major investment studies; future of public transportation. Project.

### 563 Advanced Prestressed and Reinforced Concrete Design (3)

Prerequisite: EG-CE 408 or 463.

Prestressed concrete theory; continuous prestressed concrete members, flat plate systems, virendeel systems, application of unbonded postensioning-theory and design; yield line theory, limit analysis and cracking of concrete; design of prestressed dome roof, barrel shell and hyperbolic paraboloid shell; design project to standards of professional practice. Computer application.

### 566 Design of Tall Buildings (4)

Prerequisite: EG-CE 408 or 430; EG-CE 533 or equivalent. Characteristics, design criteria and safety provisions of tall buildings; selection, optimization and analysis of framing systems; design standards, constructability, wind and seismic considerations; design project to the standards of professional practice. Computer application.

### 575 Expert Systems in Construction Engineering (3)

Prerequisite: Any 400-level Management course approved by the Civil and Environmental Engineering Department Head. Expert systems and artificial intelligence techniques in construction engineering; expert systems for: safety evaluation of structures during construction, site selection, construction decision making, and construction schedule analysis; project monitoring; claims and disputes.

### 597 Project (1-6)

Prerequisites: classified graduate status and formal approval of Civil Engineering Graduate Committee, graduate adviser and department head.

### 598 Thesis (1-6)

Prerequisites: classified graduate status and formal approval of Civil Engineering Graduate Committee, graduate adviser, and department head. (Maximum of 3 units per semester)

### 599 Independent Graduate Research (1-3)

Prerequisites: classified graduate status and formal approval of Civil Engineering Graduate Committee, graduate adviser, and department head.

# communications

### INTRODUCTION

Effective ethical communications are essential for the well-being of a democratic society. Thus, there is a need for persons trained in the theory and practice of informing, instructing, and persuading through communications media. The educational objectives of the programs leading to the Bachelor of Arts in Communications are: (1) to ensure that all majors receive a broad liberal education; (2) to provide majors with a clear understanding of the role of commu-

nications media in society; and (3) to prepare majors desiring communications-related careers in the mass media, business, government and education by educating them in-depth in one of the specialized sequences within the department.

### **ADVISERS**

Undergraduate: All faculty serve as undergraduate advisers. Students may find their assigned concentration adviser posted on the bulletin board outside Humanities 230.

Graduate: Hazel Warlaumont, Humanities 330

Additional advising services are available in the School of Communications Advising Center, Humanities 225A.



### **BACHELOR OF ARTS IN COMMUNICATIONS**

A communications major is required to take 12 units of core requirements in addition to 24 units in a chosen concentration. The department offers five concentrations (referred to as "sequences" within the department): advertising, journalism, photocommunications, public relations, and television-film. The major totals 36 units. All prerequisite courses must be completed with a grade of *C* or better.

Collateral requirements: Twelve units of upper-division course work in other departments approved by the student's concentration adviser are also required. Collateral courses are listed on advising materials available in Humanities 230.

Every major must take a minimum of 84 units outside Communications, out of the 124 units required for graduation. Of this 84 units, 65 must be in the traditional liberal arts, humanities and sciences. Students should consult their concentration adviser and the School of Communications Advisement Center early in their course work to be sure they meet these requirements.

### Grade-Point Average Requirements

Three grade-point averages, each 2.0 or higher, are required for graduation:

- A. An average based on all units attempted, including those attempted at other institutions.
- B. An average based on all units attempted at CSUF.
- C. An average based on all units attempted in the major.

### **DEPARTMENT CHAIR:**

Wendell C. Crow

### **DEPARTMENT OFFICE:**

Humanities 230

### **DAILY TITAN NEWSROOM:**

Humanities 213

### **DAILY TITAN BUSINESS MANAGER:**

Humanities 211

### **PROGRAMS OFFERED**

Bachelor of Arts in Communications

Concentrations:

Advertising

Iournalism

Photocommunications

Public Relations

Television-Film

Master of Arts in Communications

Concentrations:

Advertising

Journalism

Public Relations

Television-Film

### FACULTY

Jeff Brody, Thomas Clanin, Wendell Crow, Robert Davis, David DeVries, Ronald Dyas, Tony Fellow, Edward Fink, Lynne Gross, Carolyn Johnson, Kuen-Hee Ju-Pak, Cynthia King, Paul Lester, Norman Nager, Arlene Nichols, Coral Ohl, Wayne Overbeck, Rick Pullen, Tony Rimmer, Shay Sayre, Edgar Trotter, Larry Ward, Hazel Warlaumont, Diane Witmer, Fred Zandpour

### Communications Core

The communications core provides background and perspective appropriate to all the departmental concentrations and an understanding of the role of communicators and their contributions to the development of high standards of professionalism.

Nine units of required course work:

Comm 233 Mass Communication in Modern Society (3)

Comm 407 Communications Law (3)

Comm 425 History and Philosophy of American Mass Communication (3)

Plus three units selected from the following:

Comm 300 Visual Communication (3)

Comm 410 Principles of Communication Research (3)

Comm 422 Communication Technologies (3)

Comm 426 Global Media Systems (3)

Comm 428 Communications and Social Change (3)

Comm 480 Persuasive Communications (3)

Comm 482 Media Economics and Policy (3)

### Minor or Collateral Requirement

All Communications majors must complete EITHER a minor (double major also counts) OR 12 collateral units (4 classes) of upper-division (UD) coursework outside of Communications. For minors or double major requirements, consult the "Academic Programs" section of this catalog. For collaterals, consult a sequence checklist for a list of approved courses. The following classes are approved for ALL sequences: Afro 335, American Studies 300, American Studies 301, Philosophy 312, Poli Sci 300, Poli Sci 448, Psychology 351, Comparative Religions 400, Sociology 345, Speech Comm 320, Speech Comm 325, Speech Comm 333.

### **Communications Concentrations**

Every communications major must select and complete 24 units of course work in a major concentration.

### Advertising

The objective of the advertising concentration is to prepare students for entry-level positions in one or more of the four basic advertising activities: creative (copy, layout design), media planning and buying, research, and management. Students are provided with knowledge and skills needed for work with an advertiser, advertising agency,

the print and broadcast media, or support service industry.

Comm 350 Principles of Advertising (3)

Comm 351 Writing for the Advertising Industry (3)

Comm 352 Advertising Media (3)

Comm 353 Advertising Creative Strategy and Execution I (3)

Comm 451 Advertising Campaigns (3)

Comm 495 Mass Media Internship (3)

Electives in Communications (6)

### **Journalism**

The principal objective of the journalism concentration is to provide the skills and practice necessary for careers in the print and electronic news media. Specifically, the concentration objectives are: (1) to provide experience in writing various types of news stories, and to develop skills in reporting and news gathering techniques; (2) to develop critical acumen necessary to check news stories for accuracy and correctness; (3) to develop skills in graphics or photography that complement the journalistic writing skills; (4) to provide actual on-the-job experience by working on the campus newspaper and through an internship; and (5) to add breadth and depth to the professional's specialized skills through collateral courses.

Comm 101 Writing for the Mass Media (3)

Comm 201 Reporting for the Mass Media (3)

Comm 332 Editing Design (3)

Comm 335 Public Affairs Reporting (3)

Comm 338 News Media Production (3)

Comm 495 Mass Media Internship (3)

Plus three units from: Comm 217 or 358 (with adviser's consent).

and three units from: Comm 334, 430 or 435.

Students who want to pursue broadcast journalism may substitute the above concentration requirements with the following courses: Communications 101, 202, 279, 335, 371, 372, 382, and 495.

### Photocommunications

The photocommunications concentration provides a comprehensive study of the aesthetics, theories, and practices of contemporary photography for professional careers in magazine and newspaper photojournalism, and advertising/commercial photography.

Comm 101 Writing for the Mass Media (3)

Comm 217 Introduction to Photography (3)
Comm 319 Photojournalism (3)
Comm 321 Advanced Color Photography (3)
Comm 495 Mass Media Internship (3)
Plus six units selected from the following:
Comm 311, 326, 338, 340, 358, 409.

### **Public Relations**

Comm 301, 334 or 362.

This concentration provides preparation in both theory and practice of two-way communication and management counsel for prospective professional public relations careers in business, industry, agency, government, and nonprofit sectors of society.

Comm 101 Writing for Mass Media (3)

Comm 361 Principles of Public Relations (3)

Comm 362 Public Relations Writing (3)

Comm 464 Public Relations Management (3)

Comm 495 Mass Media Internship (3)

Plus one writing course from among the following:

Comm 301, 334, or 338.

Plus six units selected from the following: Comm 350, 358, 363, 410, 467, 468 or 497.

### Television-Film

Courses in this concentration are designed for an understanding of the history, theory and practice of television and film. Students are prepared for entry level positions in business, education, and the broadcasting, cable and film industries.

Comm 279 Introduction to Video Production (3)

Comm 301 Writing for Broadcasting and Film (3)

Comm 382 Introduction to Television and Film (3)

Comm 402 Advanced Writing for Television and Film (3)

Comm 495 Mass Media Internship (3)

Plus nine units selected from the following: Comm 278, 311, 345, 375, 379, 383, 411, 476, 477, 478 or 488.

Students who want to pursue broadcast journalism may substitute the above concentration requirements with the following courses: Communications 101, 202, 279, 335, 371, 372, 382, and 495 as well as the collateral course requirements listed under the journalism concentration.

### Writing Requirements

All communications majors must satisfy both departmental and university writing requirements. A grade of C or better in English 101 or an equivalent course is a prerequisite for all Communications writing courses. Students who complete an equivalent to CSUF's English 101 at a community college or another four-year college/university must bring a copy of the relevant transcript to the department office, Humanities 230.

University Writing Requirement: The coursework portion of the university's upperdivision baccalaureate writing requirement for communications majors may be met by satisfactory completion of any one of Communications 301, 334, 335, 338, 351, 362, 371, 402, and 435. Students must earn a C or better in the course which is used to fulfill the university's upper-division writing requirement.

### Internship Requirements

The beneficial attributes of an internship have always been recognized by the Department of Communications. Students usually intern at sites in Orange and Los Angeles Counties. Examples of internship sites include newspapers, magazines, television and radio stations, public relations and advertising agencies, health-related institutions, nonprofit organizations, film production companies, publishers, education offices, cities and businesses with communications needs.

In order to take the required Mass Media Internship course, Communications 495, students must file an application and attend an orientation session in the semester prior to the semester in which they wish to register for the class. Students must be communications majors with senior standing and have completed the prerequisites set for the major sequence. These are as follows:

Advertising

Required: Communications 350, 351, 352, and 353.

Recommended: Communications 358 and 450. *Journalism* 

Required: Communications 101, 201, 332, and 335.

Recommended: Communications 334 and 338.

Photography

Required: Communications 101, 217, 319, and 321.

Recommended: Communications 326.

Public Relations

Required: Communications 101, 361, and 362. Recommended: Communications 358, 363, and 464.

TV/Film

Required: Communications 279, 301, and 382.

Recommended: Communications 311, 379, and 402.

Broadcast Journalism

Required: Communications 101, 202, 279, and 371.

Recommended: Communications 335.

Students with one or more years of fulltime employment in a communications position may petition to take an alternative course instead of Communications 495.

Students must have a major and overall grade-point average of 2.25. Students not meeting that requirement may be required to take a course in place of Communications 495.

Applications and information can be obtained at the Department of Communications Internship Office in Humanities 225A.

# MASTER OF ARTS IN COMMUNICATIONS

The degree is designed to provide advanced study in communications theory and research plus some concentration in one of the department's sequences: advertising, journalism, public relations, or television-film.

The program prepares the graduate to apply advanced communications concepts, research and development skills, and theories relevant to the use of communications media for a wide variety of purposes. Such study may serve those whose careers involve the use of print, broadcast and film media of communications to inform, instruct and persuade. Communications skills are highly applicable to a wide range of careers in business, industry, government, education and the mass media.

Students completing the Master of Arts in Communications are eligible for journalism teaching positions in community colleges.

# Admission to Graduate Standing: Conditionally Classified

Normally, an applicant must meet gradepoint average requirements of 3.0 in the
undergraduate major and 2.75 in the last 60
semester units of undergraduate course work,
meet the university requirements, and satisfactorily complete the Graduate Record
Examination General Test prior to admission.
Students must also submit three letters of recommendation and an essay (approximately
1000 words) outlining reasons for pursuing
the master's degree. Consult the department
graduate program adviser for details regarding additional admission requirements.

### Graduate Standing: Classified

A student admitted in conditionally classified standing may be granted classified standing upon the development of an approved study plan and satisfactory completion of prerequisite course work. Satisfactory coursework or its equivalent in the following may be taken concurrently with degree requirements if not completed prior to classification:

- (a) communications writing (Comm 201, 301, 351, or 362)
- (b) an introductory course in the area of specialization (Comm 332, 350, 361, or 382)
- (c) Comm 410 Principles of Communication Research

### Study Plan

The student is required to complete 30 units of approved studies with a minimum grade-point average of 3.0 including 15 units in 500-level communications courses. Six of the 15 units of 500-level courses may be in thesis, three units may be in a project. The remaining units will be comprised of upper division or 500-level courses appropriate to the communications sequence.

The candidate must develop a program of study in consultation with a concentration adviser and the graduate adviser of the Department of Communications. The candidate must plan the thesis or project topic with a committee. The committee will include at least two faculty members from the Department of Communications.

# Study plan requirements include the following:

Core Courses (6 units)

Comm 500 Theory and Literature of Communications (3)

Comm 508 Humanistic Research in Communications (3)

OR Comm 509 Social Science Research in Communications (3)

Sequence-Related Courses (18 units)

Comm 515T Professional Problems in Specialized Fields (3)

OR approved 500-level alternate

Comm 520A or C Communications
Practicum (3)

OR approved alternate

Consult the Communications
Department Master's Program bulletin for additional sequence requirements.

Electives (0-6 units)

Project/Thesis/Exam (0-6 units)

Comm 597 Project (3)

OR Comm 598 Thesis (6)

OR Comprehensive Exam

For further information and advisement, please consult the graduate program adviser.

### **COMMUNICATIONS COURSES**

### 101 Writing for the Mass Media (3)

Prerequisite: English 101 or equivalent with a grade of C or better; typing ability. Principles and practices of writing for major types of mass communications media. Content, organization, conciseness and clarity.

### 201 Reporting for the Mass Media (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Comm 101 or equivalent; typing ability. Development of expertise in the use of news reporting techniques combined with development of ability to compose complex journalistic writing forms for possible publication. Students will be introduced to computer-assisted reporting. They also will write stories for the Daily Titan.

### 202 Writing Broadcast News (3)

Prerequisites: English 101 or equivalent with a grade of *C* or better; Comm 101 or equivalent; typing ability. Intensive journalistic writing and reporting for radio and television. Emphasis on writing assignments for both audio and video media. Lecture/discussion of issues and responsibilities facing broadcast journalists.

### 217 Introduction to Photography (3)

Cameras, accessories, materials, exposure, image processing, printing, finishing, composition, filters, flash, studio techniques, and special subject treatments and applications. (2 hours lecture, 2 hours activity)

# 233 Mass Communication in Modern Society (3)

Newspapers, magazines, films, radio and television; their significance as social instruments and economic entities in modern society. (CAN JOUR 4)

### 278 Introduction to Audio Production (3)

Prerequisite: Communications majors only. Audio production as it pertains to radio broadcasting, commercial production, and recording, television and film audio. (2 hours lecture, 3 hours laboratory)

### 279 Introduction to Video Production (3)

Production of programs for broadcast stations and other video materials for cable, business, industrial, and instructional applications. (2 hours lecture, 3 hours laboratory)

### 300 Visual Communication (3)

A social and cultural analysis of the meaning, production and consumption of visual information in a modern media society. Still, moving, television, graphic design, cartoon, and computer images will be analyzed in terms of technical, commercial, and cultural considerations.

### 301 Writing for Broadcasting and Film (3)

Prerequisite: English 101 or equivalent with a grade of *C* or better; typing ability. Theory and principles of writing in the broadcast and film media.

# 311 Introduction to Motion Picture Production (3)

Theory and practice of motion picture photography and film production. (2 hours lecture, 3 hours laboratory)

### 319 Photojournalism (3)

Prerequisite: Comm 217 or equivalent. Photography for publication in print media. News, advertising, feature, sports, lifestyle, photo essay and documentary applications. (2 hours lecture, 3 hours laboratory)

### 321 Advanced Color Photography (3)

Prerequisites: junior standing and Comm 319 or consent of instructor. Positive and negative color film processing, sensitometry, and color printing. Creative and effective use of color in publications photography. (2 hours lecture, 3 hours laboratory)

### 326 Communications Photography (3)

Prerequisites: junior standing and Comm 321, or consent of instructor. Photographs and photographic communications produced with the large format camera for the mass media, business, education, government, industry and science. (2 hours lecture, 3 hours laboratory)

### 332 Editing Design (3)

Prerequisites: Comm 101 and Comm 201 or equivalent. Principles and practice of newspaper editing: copy improvement, head-line writing, news photos and cutlines, wire services, typography, copy schedules and control, page design and layout, law and ethics. (2 hours lecture, 3 hours laboratory)

### 334 Feature Article Writing (3)

Prerequisites: English 101 or equivalent with a grade of C or better; and Comm 101 or equivalent. Nonfiction writing for newspapers and magazines; sources, methods and markets.

### 335 Public Affairs Reporting (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Comm 101 and either 201or 202, or consent of instructor; and junior standing. Comm 407 recommended. Reporting public interest news such as courts, education, finance, government, police and urban problems.

### 338 News Media Production (3)

Prerequisites: English 101 or equivalent with a grade of *C* or better; Comm 201 or equivalent or consent of instructor. Members of the class constitute the editorial staff of the university newspaper and receive training in print, on-line and magazine-style journalism. Meets four hours per week for critiques in news reporting, writing, editing and makeup, followed by production. May be repeated for a maximum of six units of credit. (More than 9 hours laboratory)

# 340 Photography in Advertising and Public Relations (3)

Prerequisites: junior standing and Comm 326 or consent of instructor. Advertising and public relations photography. Materials and techniques for producing photographs with visual impact suitable for photo reproduction. Students will prepare a portfolio of photographs. (2 hours lecture, 3 hours activity)

# 345 The Language of Film and Television (3)

Prerequisite: Comm 233 or consent of instructor. Critical and theoretical analysis of film and television as communication. Examines the manner in which an organized sequence of images and sounds communicates meaning using literature in semiology and visual communications. (2 hours lecture, 3 hours laboratory)

### 350 Principles of Advertising (3)

This course explores the functions, strategies, ethics, technology, and media relevant to the advertising industry, as well as concepts in international, intercultural and integrated marketing communication.

### 351 Writing for the Advertising Industry (3)

Prerequisites: English 101. This course develops written communications and critical thinking skills essential for success in all advertising related careers. Students learn to compose persuasive letters, reports, proposals and news releases. Emphasis is placed on grammar and language skills. Students must achieve a C or better to continue taking advertising courses.

### 352 Advertising Media (3)

Prerequisites: Comm 350 and junior standing. Planning, execution and control of advertising media programs. Basic data and characteristics of the media. Buying and selling process, techniques, and methods in media planning process. Audience measurement and media analysis.

# 353 Advertising Creative Strategy and Execution I (3)

Prerequisites: English 101 or equivalent with a grade of *C* or better; Comm 350, 351 or consent of instructor; and junior standing. Writing of copy and layout of advertisements, based on study of sales appeals, attention factors and illustrations. (2 hours lecture, 2 hours activity)

### 358 Graphics Communications (3)

Prerequisite: junior standing. Printing processes, publication formats, copy preparation, copy-fitting techniques, layout principles, paper selection and distribution methods. (2 hours lecture, 2 hours activity)

### 361 Principles of Public Relations (3)

Prerequisite: junior standing. The social, behavioral, psychological, ethical, economic and political foundations of public relations, and the theories of public relations as a communications discipline.

### 362 Public Relations Writing (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Comm 101 or consent of instructor; typing ability; junior standing. Communications analysis, writing for business, industry and nonprofit organizations. Creating effective forms of public relations communication. (2 hours lecture, 2 hours activity)

### 363 Desktop Publishing (3)

Prerequisites: Comm 361 and six units of communications writing or consent of instructor; and junior standing. Editing functions and techniques involved in creative development of publications for business, industry and nonprofit organizations and institutions. Magazines, newspapers, newsletters and brochures.

# 371 Radio-Television News and Public Affairs (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Comm 101, 202, 279, and 382; typing ability required. Covering news events and public affairs for radio and television. (2 hours lecture, 3 hours lab)

### 372 Advanced TV News Production (3)

Prerequisite: Comm 371 or consent of instructor. Writing, production and evaluation of television news. Lecture-discussion sessions on advanced reporting techniques and special problems in broadcast journalism. (2 hours lecture, 3 hours laboratory)

### 375 Documentary Film and Television (3)

A study of documentary form in film and television, its development, purpose, and current trends. The class will also survey the requirements necessary to write and produce non-fiction films for television, business, education and government.

### 379 Electronic Field Production (3)

Prerequisite: Comm 279. Production of programs for broadcast, cable, business, industrial and instructional use. Emphasis on location shooting and post production including electronic editing. (2 hours lecture, 3 hours laboratory)

### 380 Interactive Multimedia Productions (3)

Prerequisite: Comm 101, junior standing, or consent of the instructor and fundamental familiarity with hardware and software used in the communications profession, underlying concepts and production techniques for creating interactive multimedia for presentations, specialized communications, and publications with stand-alone and network applications.

### 382 Introduction to Television and Film (3)

Prerequisite: Communications major or consent of instructor. The foundation course of the television-film sequence. An analysis of the radio, television, cable and film industries from a professional perspective. Economic, historical, regulatory and social effects of these media.

### 383 World Cinema (3)

The study of the motion picture as a global influence in mass communications and entertainment. An examination of various directors, film movements, national cinemas, and of the increasing internationalization of the world film industry. Film screenings on and off campus. (2 hours lecture, 3 hours laboratory)

# 402 Advanced Writing for Television and Film (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Comm 301, and junior standing. An advanced writing class concentrating on the long form of broadcast and film writing, including documentaries, features, special news, commentaries, and analysis.

### 407 Communications Law (3)

Prerequisites: Comm 233 and junior standing. The Anglo-American concept of freedom of speech and press; statutes and administrative regulations affecting freedom of information and publishing, advertising, and telecommunication. Libel and slander, rights in news and advertising, contempt, copyright, and invasion of privacy.

### 409 Advanced Photojournalism (3)

Prerequisites: Comm 321 and junior standing or instructor's consent. Advanced press photography. Extensive use of cameras for photographic reporting; evaluation and preparation of pictures for publication. Field/laboratory experience in black and white and color. (2 hours lecture, 3 hours laboratory)

### 410 Principles of Communication Research (3)

Prerequisites: Comm 233 and junior standing. Research methods used to assess the effects of print, broadcast, and film communications on audience attitudes, opinions, knowledge, and behavior. Research design and data analysis in communications research.

### 411 Advanced Motion Picture Production (3)

Prerequisites: Comm 301, 311, or consent of instructor. Theory, procedures and practice in film production: motion picture (silent and sound), scriptwriting, transfer and mixes, production, distribution and financing. (2 hours lecture, 3 hours lab)

### 422 Communications Technologies (3)

Prerequisite: Comm 233. Issues surrounding communications technologies. Covered are recent developments in technology, impact of government, industry and economic factors, historical overview, and implications for social change. Exposure to technological developments. Applications to all areas of mass communications.

### 425 History and Philosophy of American Mass Communication (3)

Prerequisites: Comm 233 and junior standing. American mass communication; newspapers and periodicals through radio and television; ideological, political, social and economic aspects.

### 426 Global Media Systems (3)

Prerequisites: Comm 233 and junior standing. Major mass communication systems, both democratic and totalitarian, and the means by which news and propaganda are conveyed internationally.

### 428 Communications and Social Change (3)

Prerequisites: Comm 233 and junior standing. How innovations, ideas, products, and practices perceived as new are communicated to members of a social system. The roles of adopters, opinion leaders, change agents and communications in the diffusion of innovations and consequent changes in social systems.

### 430 Newspaper Management (3)

Prerequisite: consent of instructor and junior standing. Organization, operation and administration of a newspaper's departmental activities: advertising, business, circulation, mechanical, news-editorial and promotion. (3 hours lecture, field trips, detailed study of one selected newspaper department)

### 435 Editorial and Critical Writing (3)

Prerequisites: English 101 or equivalent with a grade of *C* or better; upper-division writing course; and junior standing. Editorial and critical writer and opinion columnist roles. Techniques of editorial writing and aspects of critical thinking. (2 hours lecture; 2 hours lab and fieldwork)

### 438T Specialized Reporting (3)

Prerequisites: Comm 101, 201 and 332 or consent of instructor. This varied topic course is designed to teach advanced reporting and writing skills in specialized areas. It will combine an awareness of techniques and resources with an abundance of writing models and field experiences. Topics will include politics, minorities, and environment.

# 450 Advertising Communications Management (3)

Prerequisites: Comm 350, 352 and junior standing. Theory and techniques for planning, directing and evaluating advertising programs with emphasis on media-message strategies. Managerial approach with case studies to the solution of advertising communications problems.

### 451 Advertising Campaigns (3)

Prerequisites: Comm 350, 352 and 353 and junior standing. Advertising campaigns and utilization of mass media, such as television, newspapers and magazines, in national advertising programs. Design of complete campaigns from idea to production readiness.

Students have three options: AAF national competition, local focus, or TitanCom student-run advertising company.

# 453 Advertising Creative Strategy and Execution II (3)

Prerequisites: English 101 or equivalent with a grade of C or better; Comm 350, 353, 358; and junior standing. Advanced advertising projects involving application and execution of creative advertising strategies for mass media, including theory and practice of writing copy, and preparing comprehensive layouts and completed scripts. Group discussions, labs, and individual conferences.

### 464 Public Relations Management (3)

Prerequisites: Comm 361, 362 and junior standing. Analysis of systems and strategies for planning public relations campaigns and solving/preventing problems. Individual and team case studies in corporate development of proposals; actual use of tools in addition to role playing presentations to management.

### 467 Public Relations Agency Seminar (3)

Prerequisites: Comm 101, 361 and junior standing. Seminar focuses on psychology and functions of client counseling, proposal writing, new business development, agency management, servicing clients, evaluation of methods, reporting results, and legal and ethical concerns.

# 468 Corporate and Nonprofit Public Relations (3)

Prerequisites: Comm 101 and 361. This seminar focuses on the public relations strategies and tactics used in today's increasingly sophisticated and maturing corporate and nonprofit marketplaces. This advanced course, which relies heavily on professional guest speakers and in-class simulations/exercises, encompasses a host of specific topics, such as fund raising, corporate and social responsibility, media relations, and technology and ethical issues.

### 476 Children's Television (3)

Prerequisites: Comm 382 or consent of instructor. Overview of literature on effects of television on children, taking into account the various stages of child development. Examination of historical actions taken in relations to children's TV on such issues as advertising, violence, stereotyping, and eduction. Analysis of how TV producers and programmers use concepts related to children and TV when they design material for children.

### 477 Radio and TV Programming (3)

Prerequisite: Comm 382. The study of the purposes, philosophies, and methods of obtaining, developing, launching, scheduling, and evaluating programming for the various electronic media including commercial radio and television networks, commercial radio and television stations, cable television, and public radio and television.

# 478 Management in the Broadcasting and Film Industries (3)

Prerequisite: advanced standing, Comm 382 or consent of instructor. The study of management of the broadcasting, cable-TV and film industries with attention to financial structures, programming and government regulation.

### 480 Persuasive Communications (3)

Prerequisites: Comm 233 and junior standing. Persuasive communications applied to mass communication. The communicator, audience, message content and structure, and social context in influencing attitudes, beliefs and opinions.

### 482 Media Economics and Policy (3)

Prerequisites: junior standing and Comm 233 and one of the following: Comm 350, 361, 382, or 430. Explores structure, behavior and performance of media industries and public policy forces that define and direct media. Provides basis for analyzing media industries and for managerial decision making within industries. Covers all mass media industries.

# 488 Production Workshop for Cable Television (3)

Prerequisites: B average in Comm 279 and 379 or consent of instructor. Students produce informational and sport programs for cable TV systems and radio stations. May be repeated once for credit; only three units may apply to major. (9 hours laboratory)

### 495 Mass Media Internship (3)

Prerequisites: senior standing, communications major and consent of instructor.
Supervised internship, according to sequence, with newspaper, magazine, radio or television station, press association, public relations firm or advertising agency.
Applications must be made through department coordinator one semester prior to entering program. (Credit/No Credit only)

### 496 Student-to-Student Tutorial (1-3)

Prerequisites: consent of instructor and previous superior performance in a similar or equivalent course. Under faculty supervision, student provides tutorial assistance in a communications course. May involve small group demonstrations and discussions, individual tutoring and evaluation of student performance as appropriate. May be repeated to a maximum of four units either separately or in combination with Comm 499.

# 497 Seminar in Public Communications Practices (3)

Prerequisite: Comm 464, junior standing and consent of instructor. Operationalizing public relations management principles. Role of public relations in contemporary society. Ethics, social responsibilities and trends in the emerging profession.

### 499 Independent Study (1-3)

Prerequisite: consent of department chair. Individually supervised mass media projects and research on campus and in the community. May involve newspaper and magazine publishers, radio and television stations and public relations agencies. May be repeated up to a maximum of four units either separately or in combination with Comm 496.

# 500 Theory and Literature of Communications (3)

Prerequisite: conditional classified status. Theories and research on communication processes and effects; source, media, message, audience and content variables. Types, sources and uses of communication literature. Graduate seminar.

# 508 Humanistic Research in Communications (3)

Prerequisites: Comm 410, 500 or concurrent enrollment and classified status. Humanistic methods of study in communications: historical research and critical analysis applied to problems, issues and creative works in communication. Graduate seminar.

# 509 Social Science Research in Communications (3)

Prerequisites: Comm 410, 500 and classified status. Social-scientific research design and analysis and the study of communication processes and effects. Graduate seminar.

### 515T Professional Problems in Specialized Fields (3)

Prerequisite: Comm 500. Selected topics and issues in the field of mass communications. Subjects vary each semester. May be repeated for a maximum of six units.

### 517 Ethical Problems of the Mass Media (3)

Prerequisite: Comm 500. This course will study criticisms of specific functions of the mass media and public relations. The course will consist of three sections: the history of criticism; problem areas of the media; and practitioner response to criticism.

# 518 Seminar in Public Relations Theories and Issues (3)

Prerequisite: Comm 361, 362, 410 and 500 or equivalents. This graduate seminar explores cutting edge communication and organizational theories and vital emerging issues influencing the field of public relations. Special focus will be on contemporary public relations models and practitioner roles.

# 519 Communications and Governance in America (3)

Prerequisite: Comm 500 or consent of instructor. The course will study relationships between systems of communications, particularly new communication technologies, and governmental institutions and processes within the American setting. It will explore how technological change relates to patterns of decision-making, management, and the content and flow of information among public officials.

### 520A,C Communications Practicum (3,3)

Prerequisites: Comm 500 and six units of study-plan courses in area of specialization; Comm 518 is an additional prerequisite for C. Under supervision of a faculty member, students plan, design, conduct and evaluate a team project in their field of specialization: A - News-Editorial, C - Public Relations.

### 525 Advanced Communications Management (3)

Prerequisite: Comm 500. The course is designed to provide the student with an upto-date assessment of general management and communications management techniques, and to help equip the student for management positions in advertising, journalism, public relations and broadcasting.

### 550 Advertising in Modern Society (3)

Prerequisite: Comm 500. Assessing the impact of advertising on society, the culture and economy. Philosophical rather than technical examinations of critical issues and problems such as economic and social effects of advertising, effects of value and life styles, ethics and regulation.

### 595 Graduate Mass Media Internship (3)

Prerequisite: Comm 500 and Comm 508 or 509, and consent of instructor. Supervised practical work experience with media outlets, advertising and promotion agencies, public relations firms, film companies, etc. Involves cooperative efforts of both the departmental faculty and employers. Exposure to current and innovative techniques in research, management and creative activities while offering practical experience.

### 597 Project (3)

Completion of creative project in a sequence beyond regularly offered course work.

### 598 Thesis (3 or 6)

Completion of a thesis in a sequence beyond regularly offered course work.

### 599 Independent Graduate Research (1-3)

Prerequisite: consent of department chair. Individually supervised mass media projects or research for graduate students. May be repeated.

# COMPACTATIVE

### INTRODUCTION

Comparative Religion (formerly Religious Studies) examines the spiritual quest of humankind, especially as it has manifested itself in the worldis living religions. These include Hinduism, Buddhism, Judaism, Christianity, Islam, and other less familiar traditions. No other academic field looks at the origins, sacred writings, rituals, beliefs and world view of the various religions for their own sake rather than as an aspect of another field of study.

Within a public university, religion must be approached with academic objectivity and without favoritism for any one tradition. Yet, religion must also be studied with sensitivity and empathy for the millions of believers whose lives are shaped by their faith



Comparative Religion is also an interdisciplinary field which draws on the work of social scientists, historians, philosophers, and literary scholars in attempting to understand the religious quest. Hence, studying religious traditions develops habits of mind that are very important for life in our multicultural society. Furthermore, a familiarity with the world's religions is necessary for an understanding of church-state issues in America and of political and economic conflicts in, the Mideast, India, Eastern Europe and elsewhere.

The Bachelor of Arts in Religious Studies is designed for those who (1) want a humanities undergraduate background focusing on religion as a preparation for further study in such fields as education, law, social work, counseling and government service; (2) wish to pursue graduate studies in religion with the aim of teaching and/or doing research in the subject; (3) are considering a career in various religious ministries or in religious education.

Because the major consists of 36 units of course work (less than some other fields), it may be possible to add a second major in, for example, Communications, History, Human Services or Philosophy. Such double majors may strengthen a studentis job preparation or background for graduate studies.

Minors in religion are offered in four areas depending on a studentis particular interest: Religious Studies (comparative emphasis), Christian Studies (an emphasis on Christianity in its many forms), Jewish Studies (an emphasis on the Judaic tradition) and Peace Studies (an emphasis on the causes of societal conflict and on its resolution, especially by pivotal religious figures).

### Awards in Comparative Religion

Two graduating seniors are recognized each year with the James O'Shea/Joseph Kalir Award for Outstanding Scholarship and the James Parkes/Morton Fierman Award for Student Achievement (for service to the department and university and/or for interfaith work within and outside the university). In addition, the Donald Gard Award is given annually to a non-graduating Religious Studies major for academic achievement.

### **DEPARTMENT CHAIR:**

Benjamin Hubbard

### **DEPARTMENT OFFICE:**

Education Classroom 622

### **PROGRAMS OFFERED**

Bachelor of Arts in Religious Studies

Minor in Religious Studies

Minor in Christian Studies

Minor in Jewish Studies

Minor in Peace Studies

### FACULTY

Daniel Brown, Benjamin Hubbard, George Saint-Laurent, James Santucci, Bradley Starr

### **ADVISER**

All programs: James Santucci

### Graduate Study

The department works cooperatively with the Department of Religion in the Claremont Graduate School. Please contact the chair or undergraduate adviser about specific cooperative arrangements.

# BACHELOR OF ARTS IN RELIGIOUS STUDIES

The Bachelor of Arts in Religious Studies consists of 36 units. Courses in other schools and departments may be acceptable for the major upon consultation with the departmental adviser. Each course counted toward the major must be completed with a grade of C or higher.

### Lower Division Requirements (9 units)

- Introduction to the Study of Religion (3 units)
- Comparative Religion 105 Religion and the Quest for Meaning (3)
- Comparative Religion 110 Religions of the World (3)
- Introduction to Western Religious Traditions (3 units)
- Comparative Religion 200 Introduction to Christianity (3)
- Comparative Religion 201 Origins of the New Testament (3)
- Comparative Religion 210 Introduction to Judaism (3)
- Comparative Religion 250 The Religion of Islam (3)
- Introduction to Non-Western Religious Traditions (3 units)
- Comparative Religion 270T Introduction to the Asian Religions (3)
- Comparative Religion 280 Introduction to Buddhism (3)

### Upper Division Requirements (24 units)

- Core Requirements (6 units)
- Comparative Religion 300 Methods of Studying Religion (3)
- Comparative Religion 485T Major Religious Thinkers and Concepts (3)\*
  - \*May be taken only after completion of 15 units in Comparative religion, including Comparative Religion 110 and 300 and junior standing.

- The Development of Western Religious Thought (6 units)
- Comparative Religion 345A History and Development of Christian Thought: The Beginning to 1274 (3)
- Comparative Religion 345B History and Development of Christian Thought: 1275 to the Present (3)
- Comparative Religion 346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)
- Comparative Religion 346B History and Development of Jewish Thought: 1204 to the Present (3)
- Comparative Religion 349A History and Development of Islamic Thought: The Beginning to 1258 (3)
- Comparative Religion 349B History and Development of Islamic Thought: 1259 to Modern Times (3)
- Comparative Religion 350T Major Christian Traditions (3)
- History/Comparative Religion 405 History of the Jews (3)
- History/Comparative Religion 406 The Holocaust (3)
- History/Comparative Religion 417B Roman Empire (3)
- History/420 The Byzantine Empire (3)
- History/Comparative Religion 421A History of the Christian Church to 1025 (3)
- History/Comparative Religion 421B History of the Christian Church from 1025 to the Present (3)
- History/Comparative Religion 425B The Reformation (3)
- History/Comparative Religion 466A Islamic Civilization: Arab Era (3)
- History/Comparative Religion 466B Islamic Civilization: Imperial Age (3)
- History/Comparative Religion 483 American Religious History (3)
- The Development of Non-Western Religious Thought (6 units)
- Afro/Comparative Religion 325 African-American Religion (3)
- Comparative Religion 347A Hindu Tradition to 400 B.C.E. (3)
- Comparative Religion 347B Hindu Tradition from 400 B.C.E. (3)
- Philosophy 350 Asian Philosophy (3)

- Comparative Religion 370 New Religious Movements in the U.S.A. (3)
- Comparative Religion 353 Buddhism in India (3)
- Comparative Religion 354T Buddhism Outside India (3)
- Afro/Comparative Religion 437 American Indian Religions and Philosophy (3)
- History/Comparative Religion 465A History of India (3)
- History/Comparative Religion 465B History of India (3)
- The Experience of Religion (6 units)
- Comparative Religion 305 Contemporary Practices of the Worldís Religions (3)
- Comparative Religion 310 Introduction to Peace Studies (3)
- Comp Lit/Comparative Religion 312 The Bible as Literature (3)
- Comparative Religion 330T Hebrew Scriptural Studies (3)
- Comparative Religion 331T New Testament Studies (3)
- Comparative Religion 335 Judaism, Christianity, and Islam Compared (3)
- Comparative Religion 343 Religion and Current Ethical Issues (3)
- Philosophy/Comparative Religion 348 Philosophy of Religion (3)
- Comparative Religion 358 Comparative Mysticism (3)
- Comparative Religion 376 Dimensions of Religious Experience (3)
- Comparative Religion 380 The Religious Roots of Nonviolence (3)
- Geography/Comparative Religion 366
  Geography of Religion (3)
- Comparative Religion 400 Religion, the Media, and Contemporary Culture (3)
- Sociology/Comparative Religion 458
  Sociology of Religious Behavior (3)
- Comparative Religion 476 Understanding the Holocaust (3)
- Comparative Religion 481 Religion and Politics in the American Experience (3)
- Textual Studies (3)
- Comparative Religion 330T Hebrew Scriptural Studies (3)
- Comparative Religion 331T New Testament Studies (3)

### Writing Requirement

The course requirement of the university upper-division baccalaureate writing course is met through Comparative Religion 485T or Comparative Religion 486.

It is highly recommended that students majoring in Religious Studies pursue the study of classical languages such as Arabic, Greek, Hebrew, Latin, and Sanskrit when such languages are offered.

### MINOR IN RELIGIOUS STUDIES

Students minoring in Religious Studies are required to take 21 units in Comparative Religion, distributed as follows:

### Lower Division Requirements (9 units)

Introduction to the Study of Religion (3 units)

Comparative Religion 105 Religion and the Quest for Meaning (3)

Comparative Religion 110 Religions of the World (3)

Introduction to Western Religious Traditions (3 units)

Comparative Religion 200 Introduction to Christianity (3)

Comparative Religion 201 Origins of the New Testament (3)

Comparative Religion 210 Introduction to Judaism (3)

Comparative Religion 250 The Religion of Islam (3)

Introduction to Non-western Religious Traditions (3 units)

Comparative Religion 270T Introduction to the Asian Religions (3)

Comparative Religion 280 Introduction to Buddhism (3)

### Upper Division (12 units)

Core Requirements (3 units)

Comparative Religion 485T Major

Religious Thinkers and Concepts (3)

Comparative Religion 486 History and Methods of Comparative Religion (3)

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Elective Courses (9 units)

Any nine units of upper division courses in Comparative Religion.

It is highly recommended that students minoring in Religious Studies pursue the study of classical languages such as Arabic, Greek, Hebrew, Latin, and Sanskrit when such courses are offered.

### **MINOR IN CHRISTIAN STUDIES**

Students minoring in Christian Studies are required to take 21 units, distributed as follows:

Required Courses (9 units)

Comparative Religion 200 Introduction to Christianity (3)

Comparative Religion 345A History and Development of Christian Thought: The Beginning to 1274 (3)

Comparative Religion 345B History and Development of Christian Thought: 1275 to the Present (3)

Elective Courses (12 units)

At least six units must be taken in courses cross-listed with other departments.

Comparative Religion 201 Origins of the New Testament (3)

Comp Lit/Comparative Religion 312 The Bible as Literature (3)

Afro/Comparative Religion 325 African-American Religion (3)

Comparative Religion 331T New Testament Studies (3)

Comparative Religion 335 Judaism, Christianity, and Islam Compared (3)

Comparative Religion 343 Religion and Current Ethical Issues (3)

Comparative Religion 350T Major Christian Traditions (3)

Comparative Religion 358 Comparative Mysticism (3)

Geography/Comparative Religion 366 Geography of Religion (3)

Comparative Religion 376 Dimensions of Religious Experience (3)

Comparative Religion 380 The Religious Roots of Nonviolence (3)

Comparative Religion 400 Religion, the Media, and Contemporary Culture (3)

History/Comparative Religion 417B Roman Empire (3)

History/Comparative Religion 420 The Byzantine Empire (3)

History/Comparative Religion 421A History of the Christian Church to 1025 (3)

History/Comparative Religion 421B History of the Christian Church from 1025 to the Present (3)

History/Comparative Religion 425B The Reformation (3)

Sociology/Comparative Religion 458 Sociology of Religious Behavior (3)

Comparative Religion 481 Religion and Politics in the American Experience (3)

History/Comparative Religion 483 American Religious History (3)

Comparative Religion 485T Major Religious Thinkers and Concepts (3)\*

Comparative Religion 499 Independent Study (3)\*

It is highly recommended that students minoring in Christian Studies pursue the study of classical languages such as Greek, Hebrew, and Latin when such courses are offered.

\*When content pertains to the Christian tradition.

### **MINOR IN JEWISH STUDIES**

Students minoring in Jewish Studies are required to take 21 units, distributed as follows:

Required Courses (9 units)

Comparative Religion 210 Introduction to Judaism (3)

Comparative Religion 346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)

Comparative Religion 346B History and Development of Jewish Thought: 1204 to the Present (3)

Elective Courses (12 units)

At least six units must be taken in courses cross-listed with other departments.

Comp Lit/Comparative Religion 312 The Bible as Literature (3)

Comparative Religion 330T Hebrew Scriptural Studies (3)

Comparative Religion 335 Judaism, Christianity, and Islam Compared (3)

Comparative Religion 343 Religion and Current Ethical Issues (3)

Comparative Religion 358 Comparative Mysticism (3)

Geography/Comparative Religion 366 Geography of Religion (3)

Comparative Religion 376 Dimensions of Religious Experience (3)

Comparative Religion 380 The Religious
Roots of Nonviolence (3)

Comparative Religion 400 Religion, the Media, and Contemporary Culture (3) History/Comparative Religion 405 History of the Jews (3)

History 415B Hellenistic Civilization (3)

History 406 The Holocaust (3)

Sociology/Comparative Religion 458 Sociology of Religious Behavior (3)

History 467 The Middle East in the 19th Century (3)

History 468 The Middle East in the 20th Century (3)

Comparative Religion 476 Understanding the Holocaust (3)

Comparative Religion 481 Religion and Politics in the American Experience (3)

Comparative Religion 485T Major Religious Thinkers and Concepts (3)\*

Comparative Religion 499 Independent Study (1-3)\*

\*When content pertains to the Jewish tradition.

### **MINOR IN PEACE STUDIES**

Students minoring in Peace Studies are required to take 21 units, distributed as follows:

Core Requirement (6 units)

Comparative Religion 310 Introduction to Peace Studies (3)

Comparative Religion 485T Major Religious Thinkers and Concepts (3)\*\*

\*\*When content involves Peace Studies.

Required Courses (9 units)

American Studies 405 Images of Crime and Violence in American Culture (3)

Comparative Religion 380 The Religious Roots of Nonviolence (3)

Sociology 385 Family Violence (3)

Speech Comm 220 Interpersonal Conflict Management (3)

Elective Courses (6 units)

Courses must be selected from at least two of the departments included below:

Philosophy 310 Ethics (3)

Biology 330 Ecology of American Indians (3)

Afro 335 History of Racism (3)

Comparative Religion 343 Religion and Current Ethical Issues (3)

Psychology 351 Social Psychology (3)

American Studies 460 Bohemians and Beats: Cultural Radicalism in America (3) Philosophy 345 Social and Political Philosophy (3)

Sociology 372 Social Futures (3)

Management 441 Labor-Management Relations (3)

Chicano Studies 450 The Chicano and Contemporary Issues (3)

Poli Sci 456 The National Security Establishment (3)

Poli Sci 461 The United Nations and Other Public International Organizations (3)

Any 499 Independent Study\*\* (1-3)

\*\*Directed by instructor of student's choice.

### **COMPARATIVE RELIGION COURSES**

# 105 Religion and the Quest for Meaning (3)

Inquiry into the nature of religious experience as the human pursuit of meaning and transcendence, exploring its central themes, phenomena, and questions; its principal types of figures and communities; and its major categories of sacred rituals, objects, seasons, and places.

### 110 Religions of the World (3)

An introduction to at least five religious world views from an historical and comparative perspective, with descriptive analysis of their belief system, moral code, and symbolic rituals: Judaism, Christianity, Islam, Hinduism, and Buddhism. (Same as Philosophy 110)

### 200 Introduction to Christianity (3)

The Christian scriptures and their background in the light of modern exegesis; the Synoptic Gospels, written creeds and liturgical formulae associated with the Orthodox, Roman and Protestant communions.

### 201 Origins of the New Testament (3)

The sources and content of the New Testament writings which reflect the life and beliefs of the Christians in the first century of the Common Era, including literary and historical criticism.

### 210 Introduction to Judaism (3)

The Jewish tradition—its scriptures, laws, customs, holidays and world view in their historical setting.

### 246A Basic Hatha Yoga (2)

(Same as Kinesiology 246A)

### 250 The Religion of Islam (3)

The religion of Islam, its background and main teachings: the rise of Islam; the caliphate; Islamic theology, teachings, mysticism and philosophy.

# 270T Introduction to the Asian Religions (3)

The main teachings of a major South Asian, Far Eastern, or "Oriental" religion per semester. Such religions as Jainism, Hinduism, Taoism, Shintoism, and Zoroastrianism will be discussed. May be repeated for credit with different subject

### 280 Introduction to Buddhism (3)

Introduction to the origins and development of Buddhism. Included in the course will be a discussion of the major teachings found in all traditions of Buddhism, the three major traditions of Buddhism, and the position of Buddhism in the U.S.

### 300 Methods of Studying Religion (3)

Prerequisite: Comparative Religion 110 or consent of instructor. The academic study of religion to include the definition, functions and varieties of religion; the methods used to study it; and key figures who have shaped the development of this discipline.

### 301 Sanskrit (3)

(Same as Linguistics 301)

# 305 Contemporary Practices of the World's Religions (3)

Prerequisite: any one of the followinig: Anthro 100, History 110A, Comparative Religion 105, or Comparative Religion 110. A comparative study of how the beliefs, practices and moral codes of the world's major religions influence the way nations and individuals behave in the spheres of daily life, culture, ethics, business and politics.

### 310 Introduction to Peace Studies (3)

A fundamental orientation towards the academic study of the peaceful resolution of conflict on the personal, inter-personal, and societal levels, with special attention to peacemaking as an ethical and religious

### 312 The Bible as Literature (3)

(Same as Comp Lit 312)

### 325 African-American Religion (3)

(Same as Afro-Ethnic Studies 325)

### 330T Hebrew Scriptural Studies (3)

Specific areas of Hebrew Scriptures such as major and minor prophets, Psalms, values of wisdom writers, books of the Old Testament. May be repeated for credit with different subject content.

### 331T New Testament Studies (3)

Specific areas of the New Testament such as the Synoptic Gospels, the Pauline Corpus, the Johannine Corpus, etc. May be repeated for credit with different subject matter.

### 335 Judaism, Christianity and Islam Compared (3)

A comparative study of the three great monotheistic traditions, Judaism, Christianity, and Islam; their beliefs, practices, and structures.

# 343 Religion and Current Ethical Issues (3)

An examination of contemporary ethical issues as they relate to the teachings of selected religious traditions on questions such as abortion, euthanasia, environmental pollution, global hunger, homelessness, pornography and censorship, racism, sexism, and violence.

### 345A History and Development of Christian Thought: The Beginning to 1274 (3)

Christian thought from apostolic times to the death of Thomas Aquinas; Old and New Rome, the Great Councils, the Middle Ages, and the marriage of faith and reason.

### 345B History and Development of Christian Thought: 1275 to the Present (3)

Christian thought from the death of Thomas Aquinas to the present; the cultural and philosophical backgrounds of the successive ages of scholasticism, the Renaissance, Baroque, reason and revolution, and the modern world.

### 346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)

Jewish thought from biblical times to the death of Moses Maimonides (1204); Hebrew scriptures, Roman era, Talmud, and Spanish Jewry.

### 346B History and Development of Jewish Thought: 1204 to the Present (3)

Jewish thought from the death of Maimonides to the present; expulsions and persecutions, mysticism, emancipation, modern anti-Semitism, and Zionism.

### 347A Hindu Tradition to 400 B.C.E. (3)

Prerequisite: Comparative Religion 110 or 270T or consent of instructor.

Hindu thought in its earliest period.

Subjects will include an overview of Vedic literature, especially its religious content and the major rituals of the early Veda; philosophical developments in the Upanisads or later Veda; and related sacred writings.

### 347B Hindu Tradition from 400 B.C.E. (3)

Prerequisite: Comparative Religion 110 or 270T or consent of instructor. Hindu thought after the Vedic period. Subjects will include the beginnings of Hindu philosophies, classical Hindu practice, devotionalism, modern or neo-Hindu groups appearing in the nineteenth century, and the contributions of thinkers such as Ramakrishna and Gandhi.

## 348 Philosophy of Religion (3)

(Same as Philosophy 348)

### 349A History and Development of Islamic Thought: The Beginning to 1258 (3)

Prerequisite: Comparative Religion 110 or 250 or equivalent. Islamic theology, law, culture, and spirituality up to the close of the classical period in 1258. Interpretation of the Qur'an, formation of Hadith literature, development of Islamic law, divisions within Islam, rise of mysticism, contributions to science and art.

### 349B History and Development of Islamic Thought: 1259 to Modern Times (3)

Prerequisite: Comparative Religion 110 or 250 or equivalent. Islamic thought from the close of the classical period to the present, with emphasis on twentieth century developments. Emergence of modern Middle East, reform movements, Islamic response to nationalism and modernity, recent Islamic resurgence.

### 350T Major Christian Traditions (3)

Catholicism, Protestantism, Eastern
Christianity, or Post-Reformation Communities;
historical development and self-understanding,
liturgy, creeds, moral norms, canon laws and
outstanding figures. May be repeated for credit
with different content.

### 353 Buddhism in India (3)

Prerequisite: Comparative Religion 110 or 280. A historical survey of Buddhist doctrines, schools, and practices gained through translations of primary texts and discussions derived from secondary material. Analysis of the historical, philosophical, and sociological aspects of Buddhism in India. (Same as Philosophy 353)

### 354T Buddhism Outside India (3)

Prerequisites: Comparative Religion 110 or 280. A historical survey of Buddhist doctrines, schools, and practices in a particular region or regions which are: China, Japan, Korea, Southeast Asia, and Central Asia. May be repeated for credit with different content. (Same as Philosophy 354T)

### 358 Comparative Mysticism (3)

Prerequisite: Comparative Religion 110 or equivalent. A comparative survey of mysticism as a recurring phenomenon within major religious traditions. Included are selected writings and representative male and female figures, analyzed from philosophical and psychological viewpoints. Definitions, terms, metaphors, techniques, and stages of the mystical experience.

# 370 New Religious Movements in the U.S.A. (3)

Beliefs, history, ritual and organizational make-up of non-traditional modern religions in America, such as Scientology, the Unification Church, Hare Krishna (ISKCON) and Rajneeshism as presented by guest speakers. Discussion of "cult," "sect" and the occult will comprise portion of course.

# 376 Dimensions of Religious Experience (3)

The great themes of religious thought viewed objectively and subjectively in history and in the present day. Seminar and discussion presentation.

### 380 The Religious Roots of Nonviolence (3)

Prerequisites: Comparative Religion 110, 310 or consent of instructor. An investigation of the foundations of nonviolence as taught within the major religious traditions: Judaism, Christianity, Islam, Hinduism, and Buddhism.

### 400 Religion, the Media, and Contemporary Culture (3) (Formerly 390)

Prerequisite: American Studies 201 or Communication 233 or History 180 or Comparative Religion 110 or consent of instructor. Religion reporting in the secular media; the religious press in America; the influence of the media, both secular and religious, on the shaping of society's values; ethical dilemmas faced by reporters.

405 History of the Jews (3) (Same as History 405)

406 The Holocaust (3) (Same as History 406)

417B Roman Empire (3) (Same as History 417B)

421A History of the Christian Church to 1025 (3)

(Same as History 421A)

421B History of the Christian Church From 1025 to the Present (3) (Same as History 421B)

425B The Reformation (3) (Same as History 425B)

437 American Indian Religions and Philosophy (3) (Same as Afro-Ethnic Studies 437)

458 Sociology of Religious Behavior (3) (Same as Sociology 458)

465A History of India (3) (Same as History 465A)

465B History of India (3) (Same as History 465B)

466A Islamic Civilization: Arab Era (3) (Same as History 466A)

466B Islamic Civilization: Imperial Age (3) (Same as History 466B)

476 Understanding the Holocaust (3)

The ordeal of European Jewry; the beginnings and the end of an organized policy of genocide; impressions of eye witnesses; thoughts about the holocaust after a generation.

### 481 Religion and Politics in the American Experience (3)

Prerequisites: Poli Sci 100. An examination of the relationship of politics and religion, especially in the U.S. The colonial and constitutional experience, Supreme Court decisions on religious issues, the principal theorists of moral discourse in the public forum. Contemporary issues of concern. (Same as Poli Sci 481)

483 American Religious History (3) (Same as History 483)

### 485T Major Religious Thinkers and Concepts (3)

Prerequisite: approval of undergraduate adviser. Religious thinkers and concepts dealing with Western, Eastern and non-traditional religious ideas from ancient to modern times. Fulfills university upper-division baccalaureate writing requirement. May be repeated with different content.

### 499 Independent Study (1-3)

Supervised research projects in Comparative Religion to be taken with consent of instructor and the department chair. May be repeated for credit.

# computer science

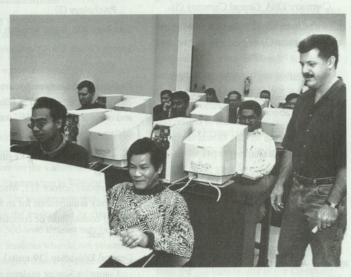
### INTRODUCTION

The undergraduate program in computer science prepares students for careers in applications programming, systems programming, and software engineering, as well as entrance into graduate and professional schools. The curriculum emphasizes fundamental concepts exemplified by various types of programming languages, computer architectures, operating systems, and data structures.

The bachelor's program is accredited by the Computing Sciences Accreditation Board.

puter science program is designed to provide the student with the foundations of the discipline as well as the opportunity for specialization. Six objectives are addressed: (1) development of the ability to

work effec-



tively as an individual or as a team member to produce correct, efficient, well-organized and documented programs in a reasonable time; (2) development of the ability to recognize problems that are amenable to computer solutions, and knowledge of the tools necessary for solving such problems; (3) development of the ability to assess the implications of work performed; (4) development of an understanding of basic computer architecture and operations; (5) preparation to pursue in-depth training in one or more application areas, or further education in computer science, and (6) development of the ability to write and speak effectively.

### **BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

Each Computer Science major is required to complete a minimum of 131 units including general education. The degree program assumes that the student has already obtained a working knowledge of at least one high-level programming language such as Pascal and a working knowledge of personal computing fundamentals and applications, including word processing, spreadsheets, database systems, e-mail systems, and presentation graphics. Students without this knowledge may be required to take up to seven additional units of course work beyond those normally required by the major.

Courses taken toward the major or toward the requirements in related fields must be taken on a traditional (letter grade) basis, unless the course is offered only on a non-traditional (credit/no credit) basis, or if the course is passed by a challenge examination. Further, no class with a grade of D or lower will be counted toward the major, as a prerequisite to a course in the department, or toward the requirements in related fields. Each student is required to complete the following set of requirements.

### Computer Science Placement Examination

Before entry into the first course required by the major (Computer Science 131), the student is required to take a placement examination or complete the required prerequisite courses offered by the department.

### **DEPARTMENT CHAIR:**

Nick Mousouris

### VICE CHAIR:

Dorota Huizinga

### **DEPARTMENT OFFICE:**

Computer Science 522

### **PROGRAMS OFFERED**

Bachelor of Science in Computer Science

Master of Science in Computer Science

Minor in Computer Science

### **FACULTY**

Susamma Barua, Ning Chen, James Choi, Hwang Chung, Bin Cong, Floyd Holliday, Dorota Huizinga, Barbara Laguna, Demetrios Michalopoulos, Mariko Molodowitch, Nick Mousouris, Edward Sowell

### Computer Science Core (49 units)

Lower-Division Core (16 units)

Computer Sci 131 Data Structures Concepts (3)

Computer Sci 223V C++ Programming (3)

Computer Sci 231 File System Concepts (3)

Computer Sci 240 Computer System Architecture I (3)

Computer Sci 241 Low-level Language Systems (3)

Computer Sci 253U Workshop in UNIX (1)

Upper-Division Core (21 units)

Computer Sci 321 High-Level Language Concepts (3)

Computer Sci 331 Data Structures and Algorithm Analysis (3)

Computer Sci 351 Operating Systems
Concepts (3)

Computer Sci 375 Problem Solving Strategies (3)

Computer Sci 423 Language Processor Techniques (3)

Computer Sci 440 Computer System
Architecture II (3)

Computer Sci 461 Software Engineering Techniques (3)

Technical Electives (12 units)

Each Computer Science major must take 12 units of technical electives which must be approved in advance by a departmental adviser. These electives must be selected from upper-division courses offered by the department or upper-division courses in numerical analysis. The electives shall constitute a coherent body of study consistent with the student's professional and educational objectives. No more than three (3) units of course work may be selected from Computer Science courses numbered 490 through 499.

### Requirements in Related Fields (40 units)

Mathematics Requirement (17 units)

Mathematics 150A,B Analytic Geometry and Calculus (4,4)

Mathematics 270A,B Mathematical Structures (3,3)

Mathematics 338 Statistics Applied to Natural Sciences (3)

Science/Quantitative Studies Requirement (14 units)

Physical Science (8 units)

One of the following combinations:

Physics 225 Fundamental Physics: Mechanics (3)

AND Physics 225L Fundamental Physics: Laboratory (1)

AND Physics 226 Fundamental Physics: Electricity and Magnetism (3)

AND Physics 226L Fundamental Physics: Laboratory (1)

OR

Chemistry 120A General Chemistry (5)

AND Chemistry 125 General Chemistry for Engineers (3)

OR

Geological Sci 101 Physical Geology (3)

AND Geological Sci 101L Physical Geology Laboratory (1)

Geological Sci 201 Earth History (4)

Biological Science (3 units)

Biology 131 Principles of Biology (3)

(Biology 101 Elements of Biology (3) or the equivalent may be substituted for 131)

Science/Quantitative Studies (3 units)

A one-semester course selected with approval of adviser from the following courses:

Biology 241 Principles of Botany (4)

Biology 261 Principles of Zoology (4)

Biology 305 Human Heredity and Development (3)

Biology 306 Biology of Aging (3)

Biology 310 Human Physiology (3)

Biology 319 Marine Biology (3)

EG-EE 425 Introduction to Systems Engineering (3)

EG-GN 308 Engineering Analysis (3)

Geography 110 Principles of Physical Geography (3)

Geography 385 Quantitative Geography (3)

Geological Science 120 Introduction to Earth Science (3)

Geological Science 120L Earth Science Lab (1)

Geological Science 140 Earth's Atmosphere (3)

Geological Science 335 General Hydrology (3)

Geological Science 376 Applied Geology (3)

Kinesiology 349 Measurement and Evaluation in Kinesiology (3) Manag Sci/Info Sys 461 Statistical Theory for Management Science (3)

Mathematics 370 Mathematical Model Building (3)

Physics 200 Introduction to Astronomy (4)

Physics 227 Fundamental Physics: Waves, Optic, and Modern Physics (3)

Physics 227L Fundamental Physics Lab (1)

Physics 380 Methods of Experimental Physics (3)

Psychology 202 Research Methods in Psychology (3)

Sociology 302 Social Research Methods (3)

Speech Comm 308 Quantitative Research Methods (3)

Undesignated Units (9 units)

These are to be taken in related fields and/or career support fields, with prior adviser approval.

# Upper Division Writing Requirement (3 units)

Computer Science 311, which meets the University requirements for an upper-division writing course, must be completed before the senior year.

### General Education (39 units)

Computer Science students must complete the university's 51-unit general education requirements. Twelve of these 51 units will be completed in the major's "Requirements in Related Fields." For the remaining 39 units, see the "General Education" section of this catalog.

### MINOR IN COMPUTER SCIENCE

A Computer Science minor shall consist of 20 units of adviser-approved courses including Computer Science 121, 131, 253U, and 313. It shall include at least six units of upper-division courses (which may include 313) taken in residence. At least twelve units must be distinct and different from the units used to complete the requirements for the major; at least six of these twelve units must be upper-division. All prerequisites must be observed.

# MASTER OF SCIENCE IN COMPUTER SCIENCE

### Admission to Graduate Standing: Conditionally Classified

A bachelor's degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units

attempted is required. Any deficiencies must be made up and will require six or more units of adviser-approved course work with at least a 3.0 average in addition to those required for the degree.

### Classified Graduate Standing

Achievement of this status requires the following:

- Approval of a formal study plan (see description below) by the Computer Science Graduate Committee and the dean of graduate studies.
- 2. Satisfactory completion of no more than nine units on the study plan.
- Satisfactory completion of the following courses or equivalents including prerequisites: Computer Science 231, 240, 241, 321, 331, 351, 375, 423, 431, and Mathematics 270A,B.
- English must be demonstrated by a passing score on the California State University Examination in Writing Proficiency. The requirement must be satisfied before the student can be classified and before 500-level courses may be attempted. Students who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction should take English 201 and Computer Science 311 to prepare for the Examination in Writing Proficiency.

Talented professional computer scientists have traditionally come from a diversity of undergraduate preparations. The listed courses have been carefully selected to provide an adequate basis for graduate work while not unfairly precluding admission of persons without a bachelor's degree in computer science. It should be noted, however, that each of these courses has prerequisites and the student without preparation in a closely related degree may have considerable work to complete beyond the courses listed here. Reference should be made to the catalog descriptions for prerequisites of each course deficiency.

These courses and their prerequisites constitute program prerequisites. Students are not allowed to enroll in courses for which they have prerequisite deficiencies. Students with knowledge equivalent to any or all of these prerequisite courses are encouraged to satisfy such prerequisites by advanced place-

ment examination. Consult a Computer
Science graduate adviser for further informa-

### Study Plan

Prior to admission to classified graduate standing in Computer Science, the student with the aid of a Computer Science graduate adviser shall prepare and submit for approval by the Computer Science Department graduate committee a formal study plan consisting of a minimum of 30 units of 400 level and graduate course work.

This shall include Computer Science 440, 461, 589, 597 or 598; one of 541, 542, 543, 544, 545 or 546; and 15 units of electives (9 units must be at the 500-level). At least 15 units shall represent courses offered by the Department of Computer Science. Courses offered by other disciplines, not listed here, and related to the students' objectives in computer science may be approved by petition to the Department of Computer Science.

All course work in the study plan must be completed with a GPA of at least 3.0.

### Graduate Student Advisement

The graduate program adviser provides overall supervision of the graduate program. The individual student chooses an adviser from the full-time faculty of the Computer Science Department on the basis of the student's particular interests and objectives.

### **COMPUTER SCIENCE COURSES**

Prerequisites for computer science courses may be waived only by department petition. Prerequisite courses must be passed with a grade of *C* or better.

### 103 Introduction to Personal Computer Applications (3)

Introduction to use and application of personal computers: word processing, spreadsheets, database systems, e-mail systems and World Wide Web. Evaluation of personal computers and software. (2 hours lecture, 2 hours laboratory)

### 121 Programming Concepts (4)

Prerequisite: three years high school mathematics including trigonometry. Introduction to programming of digital computers; subroutines, functions, and structure of algorithms; elementary input/output; arrays; strings, and data types; documentation. (3 hours lecture, 2 hours laboratory)

### 123 Programming Concepts Review (2)

Prerequisites: Three years of high school mathematics including trigonometry and sufficient score on the Computer Science

Placement Exam. Accelerated coverage of materials in Computer Science 121 for those who lack sufficient knowledge of Pascal to take Computer Science 131.

### 131 Data Structures Concepts (3)

Prerequisites: Computer Science 121 or sufficient score on the Computer Science Placement Exam, high school computer applications, and three years high school mathematics including trigonometry. Data structures: linked lists, stacks, queues, arrays, sequential text files, text formatting.

### 135 C++ Application Programming (3)

Prerequisite: Computer Science 103 or equivalent. A survey course in programming using the C++ language. Designed for persons seeking basic programming skills. Topics include language organization, data types, control structures, functions, I.O. techniques, classes, and operators. Credit earned not applicable toward B.S. degree in Computer Science. (2 hours lecture, 2 hours laboratory)

### 203 Advanced Personal Computing (3)

Prerequisite: Computer Science 103.
Computer networks. Work-group computing: electronic mail, scheduling, work-flow automation, central repositories. Desktop publishing. Vertical and horizontal software suites. (2 hours lecture, 2 hours laboratory)

### 223A Ada Programming (3)

Prerequisite: Computer Science 241. Ada control statements, types, subprograms, array and record types, packages, exceptions, access variables, dynamic objects, files, generics, compilation units, tasking, and low-level programming. Laboratory programming assignments. (2 hours lecture, 2 hours laboratory)

### 223C COBOL Programming (3)

Prerequisite: Computer Science 231. COBOL identification, environment, data and procedure divisions; moving data; printing information; arithmetic verbs; control statements; arrays and tables; sequential, relative, and indexed files; subprograms; report writer module. Laboratory programming assignments. (2 hours lecture, 2 hours laboratory)

### 223H Visual BASIC Programming (3)

Prerequisite: Computer Science 231.
Elements of Visual BASIC, forms and controls, properties, mouse events, multiple-document interface, processing files, accessing databases, dynamic data exchange, object linking and embedding. (2 hours lecture, 2 hours laboratory)

### 223S Smalltalk Programming (1)

Prerequisite: Computer Science 121 or other high-level programming course.

Smalltalk programming language including syntax, classes, objects, methods, polymorphism, inheritance, programming tools, class library. Laboratory programming assignments. (2 hours laboratory)

### 223U C Programming (1)

Prerequisite: Computer Science 121 or General Engineering 205. Structure of C programs, functions, statements, macros, data types and expressions. Header files and control facilities for separate compilation. Standard system library functions for 1/0, math, dynamic memory, process control, and interfacing with the operating system and environment. Laboratory programming assignments. (2 hours laboratory)

### 223V C++ Programming (3)

Corequisite: Computer Science 131. C++ types, arithmetic, operators, control structures, assignment operators, functions, scope, recursion, logical operators, arrays, pointers, characters, strings, structures, unions, enumerations, classes, operator overloading, inheritance, virtual functions, polymorphism, stream input/output, templates, exception handling, file processing. Laboratory programming assignments.

### 231 File System Concepts (3)

Prerequisites: Computer Science 131 and 223V. Characteristics and utilization of bulk storage devices. B-trees, sequential and random access methods. Introduction to relational data model.

### 240 Computer System Architecture I (3)

Prerequisites: Computer Science 131 and either Mathematics 270A or Mathematics 280. Digital logic and architecture of a computer system, machine level representation of data, memory system organization, and techniques for interrupt handling. (2 hours lecture, 2 hours laboratory)

### 243 Low-Level Language Workshops (2)

Preprequisite: Computer Science 241. Workshops in the use of specific low-level programming. See list following. Offered Credit/No Credit only.

# 243Y Workshop in 80X86 Assembly Language.

### 241 Low-level Language Systems (3)

Prerequisite: Computer Science 131.
Corequisite: Computer Science 240. The structure of low-level computer languages.
Machine, assembly, and macro language programming. Principles of assembler operation.
Laboratory programming assignments. (2 hours lecture, 2 hours laboratory) (Same as Electrical Engineering 241)

### 253 Operating System Workshops (1)

Workshops in the use of specific operating systems. See list following. Offered Credit/No Credit only. Prerequisites vary. (2 hours activity)

### 253U Workshop in UNIX

Prerequisite: Computer Science 121 or General Engineering 205.

### 253V Workshop in VMS

Prerequisite: Computer Science 121 or General Engineering 205.

### 303 Multimedia Concepts (3)

Prerequisites: Computer Science 103, 121 and completion of the General Education critical thinking requirements. Components and issues associated with multimedia technology, applications of multimedia and its evolution. Laboratory activities will include developing a multimedia application using a PC-based authoring tool. (2 hours lecture, 2 hours laboratory)

# 311 Technical Writing for Computer Science (3)

Prerequisite: Computer Science 231, 241 and English 101. Practice in developing documentation skills as used in the computer field. Topics include proposals, feasibility studies, user guides and manuals, business communication and technical presentation. Case studies in professional ethics. Both written and oral reports are required.

### 313 The Computer Impact (3)

Prerequisite: upper division standing.

Effect of computer use on individuals and organizations. Side effects of innovative technology and the resulting changes to organizations, social institutions, and human perceptions of events. Emphasis on personal responsibility, legal ramifications, and educational implications. Hands-on use of e-mail and the World Wide Web.

### 321 High-Level Language Concepts (3)

Prerequisites: Computer Science 231 and 241. Language definition concepts. Data types and structures. Control structures and data flow. Run-time considerations.

Interpretive languages. Introduction to lexical analysis and parsing.

### 322L Introduction to Computer Aided Design (3)

(Same as Mechanical Engineering 322L)

### 331 Data Structures and Algorithm Analysis (3)

Prerequisites: Computer Science 231, 241, and 253U; Mathematics 150B and 270B.

Corequisite: Mathematics 338. Advanced data structures, sorting, searching, graph algorithms. Introduction to efficiency analysis. (2 hours lecture, 2 hours laboratory)

### 341 Client Server Systems (3)

Prerequisites: Computer Science 231. A study of the client/server environment including platforms, operating systems, networks, middleware, distributed processing, data communication, optimization, client/server model, and trends. Programming exercises in a language suitable for the client/server environment. (2 hours lecture, 2 hours laboratory)

### 351 Operating Systems Concepts (3)

Prerequisites: Computer Science 240 and 331. Resource management, memory organization, input/output, control process synchronization and other concepts as related to the objectives of multi-user operating systems.

### 361 Software Design Concepts (3)

Prerequisites: Computer Science 223A and 241. Concepts and methodologies of the object-oriented paradigm. Object-oriented analysis and object-oriented design. Implementation of moderate size object-oriented systems. Topics in embedded systems. (2 hours lecture, 2 hours laboratory)

### 375 Problem Solving Strategies (3)

Prerequisites: Computer Science 321, 331 and Mathematics 338. Complexity classes, including undecidable and NP-complete problems. Problem solving strategies applied to parallel and distributed processing, numerical computation, and artificial intelligence. Greedy methods, divide-and-conquer, dynamic programming, approximation, and search methods.

### 423 Language Processor Techniques (3)

Prerequisites: Computer Science 321 and 331. Concepts behind the design and implementation of programming language processors such as compilers and interpreters. The design of a small compiler from a software engineering perspective.

### 431 Database Systems (3)

Prerequisites: Computer Science 311 and 351. Database models: hierarchical, network, relational, functional, E-R and object-based. Distributed DBMS and concurrency control. Query optimization. (2 hours lecture, 2 hours laboratory)

# 433 Data Security and Encryption Techniques (3)

Prerequisites: Computer Science 311, 351 and Mathematics 270B. System security and encryption. Current issues in security, encryption and privacy of computer based systems.

### 435 Algorithms for Parallel Processing (3)

Prerequisite: Computer Science 375. Brief survey of parallel processing architectures; concurrent decomposition strategies for parallelizing; selected parallel algorithms from sorting, dictionary operations, matrix operations, graph algorithms, combinatorial search, and logic programming. (2 hours lecture, 2 hours laboratory)

### 440 Computer System Architecture II (3)

Prerequisites: Computer Science 240 and 241. Computer performance, price/performance, instruction set design and examples. Processor design, pipelining, memory hierarchy design, and input/output subsystems.

### 451 Advanced Operating Systems (3)

Prerequisite: Computer Science 351. The course covers internal structures of a modern operating system. The specific topics include processes, process communication, file systems, networking, and the I/O system. There will be several programming assignments which would utilize calls and other low level interfaces.

### 457 Computer Communications (3)

Prerequisite: Computer Science 351. An introduction to digital data communications. Terminology, networks and their components, common-carrier services, telecommunication facilities, terminals, error control, multiplexing and concentration techniques.

### 459 Micro-Computer Software Systems (3)

Prerequisite: Computer Science 351. The design and implementation of software.

Analysis of a micro-computer operating system and work on a team to implement a significant programming assignment.

### 461 Software Engineering Techniques (3)

Prerequisites: Computer Science 311, 321, 331 and passing score on the Examination in Writing Proficiency. The design and development of large software systems. Organization and control of the system development process. Students will implement and discuss large scale team projects. (2 hours lecture, 2 hours laboratory)

### 465 Principles of Computer Graphics (3)

Prerequisite: Computer Science 331.
Examination and analysis of computer graphics; software structures, display processor organization, graphical input/output devices, display files. Algorithmic techniques for clipping, windowing, character generation and viewpoint transformation.

### 477 Cybernetics and Information Theory (3)

Prerequisites: Computer Science 331.
Formal theories underlying artificial intelligence. Cybernetics, information theory, decision models, Shannon's theorem, adaptive machines, search techniques, stochastic automata, time series analysis and reliability theory.

### 481 Artificial Intelligence (3)

Prerequisite: Computer Science 375. Use of computers to simulate human intelligence. Topics include production systems, pattern recognition, problem solving, searching game trees, knowledge representation, and logical reasoning. Programming in AI environments.

### 483 Pattern Recognition Techniques (3)

Prerequisites: Computer Science 331. Classification techniques, discriminant functions, training algorithms, potential function theory, supervised and unsupervised learning, feature selection, clustering techniques, multidimensional rotations and rank ordering relations.

### 495 Internship in Computer Science (1-3)

Prerequisite: computer science or related major and consent of instructor. Practical experience relevant to computer science in government or private agencies. Written and oral reports are required.

### 499 Independent Study (1-3)

Prerequisite: approval by the computer science chair. Special topic in Computer Science, selected in consultation with and completed under the supervision of instructor.

### 521 Compiler Design (3)

Prerequisite: Computer Science 423. Corequisite: Computer Science 589. Techniques for the design of compilers and their relations to formal automata and formal grammars.

# 523 Theory of Programming Languages (3)

Prerequisite: Computer Science 423.
Corequisite: Computer Science 589.
Techniques and metalanguages for the formal specification of the syntax and semantics of programming languages, and related topics.
Attribute grammars, two-level grammars, grammar-based semantic specification, operational semantics, denotational semantics, continuation semantics, axiomatic semantics.

### 531 Design of Database Management Systems (3)

Prerequisite: Computer Science 431.
Corequisite: Computer Science 589.
Implementation techniques for query analysis, data allocation, concurrency control, data structures, and distributed databases. New database models and recent developments in database technology. Student projects directed to specific design problems.

### 541 Specification of Software Systems (3)

Prerequisite: Computer Science 461.
Corequisite: Computer Science 589. Models and languages for software system specification, documents, standards, and traceability. Documentation of specification process.

# 542 Software Verification and Validation (3)

Prerequisite: Computer Science 461.
Corequisite: Computer Science 589. Theory and practice needed to ensure that a high quality software product is developed. Topics covered include a quality assessment, proof of correctness, testing, and limitations of current verification and validation methods.

### 543 Software Generation and Maintenance (3)

Prerequisite: Computer Science 461.
Corequisite: Computer Science 589. Software creation, reuse, enhancement, adaptation and correction. Alternatives to coding, language concepts, role of standards, style, management, tools, performance analysis, regression analysis, and productivity issues.

# 544 Principles and Application of Software Design (3)

Prerequisite: Computer Science 461. Corequisite: Computer Science 589. Exploration and application of different methods and languages for expressing software design. Evaluation of designs.

### 545 Software Systems Design (3)

Prerequisites: Computer Science 351 and 461. Corequisite: Computer Science 589. Development of software systems at the highest level. Systems view of software development, trade-offs between software and hardware. User interfaces, requirements analysis, techniques for development from requirements, system integration, and transition into use. Includes case studies and project.

### 546 Software Project Management (3)

Prerequisite: Computer Science 461.
Corequisite: Computer Science 589. Process considerations in software systems development. Materials and tools in software project planning. Mechanisms for monitoring and controlling software projects.

### 551 Operating Systems Design (3)

Prerequisite: Computer Science 351.
Corequisite: Computer Science 589. Design and evaluation techniques for controlling automatic resource allocation, providing efficient programming environments and appropriate user access to the system, and sharing the problem solving facilities.

### 558 Advanced Computer Networking (3)

Prerequisite: Computer Science 457 and Corequisite Computer Science 589. Systemoriented view of computer network design, protocol implementation, networking, high-speed networking, network management, computer network performance issues.

### 566 Advanced Computer Graphics (3)

Prerequisite: Computer Science 465.
Corequisite: Computer Science 589. Three dimensional: reflection models, shading techniques, rendering process, parametic representation, ray tracing, radiosity, texture, anti-aliasing, animation, color science.

### 578 Applied Pattern Recognition (3)

Prerequisite: Computer Science 483.
Corequisite: Computer Science 589. An applied approach to classification techniques, discriminant functions, training, algorithms, feature selection, clustering techniques, multidimensional rotations and rank ordering relations as they apply to statistical data, images, voice and sound analysis.

### 583 Expert Systems Design Theory (3)

Prerequisite: Computer Science 481. Corequisite: Computer Science 589. Knowledge representation and search strategies for expert systems, logic programming; expert system tools. Project.

### 585 Artificial Neural Networks (3)

Prerequisite: Computer Science 481.
Corequisite: Computer Science 589.
Principles of neural networks; neural network paradigms, software implementations, applications, comparison with statistical methods, use of fuzzy logic; project.

### 587 Natural Language Processing (3)

Prerequisite: Computer Science 481.
Corequisite: Computer Science 589. Syntactic and semantic representations for natural languages. Topics include parsing techniques, grammars, transition networks, and contextual analysis.

### 589 Seminar in Computer Science (3)

Prerequisites: one 400-level course in Computer Science and passing score on the Examination in Writing Proficiency. Research methods in computer science. Student presentations covering current topics, research advances, updating of concepts and verifications of principles of computer science. (Examples: large-scale parallelism, internet security, design for user interfaces, computers in instruction).

### 597 Project (3)

Prerequisites: classified graduate standing, approval of the computer science graduate adviser and Computer Science 589.

### 598 Thesis (3)

Prerequisites: classified graduate standing, approval of the computer science graduate adviser and Computer Science 589.

### 599 Independent Graduate Research (1-3)

Prerequisites: classified graduate standing, approval by the computer science department chair and Computer Science 589. Special topic in computer science, selected in consultation with and completed under supervision of instructor.

# counseling

### INTRODUCTION

The Department of Counseling offers a program leading to the Master of Science in Counseling, with a concentration in Marriage, Family and Child Counseling. This program is holistic in orientation and delivery. The development of the intellect, self-awareness, and reflective practitioner skills are considered to be integral to professional growth.

The following principles are emphasized with respect to therapeutic intervention: a) preven-

tion is primary;
b) the individual
is regarded as an
individual-incommunity,
rather than in
isolation; and c)
human development is viewed
within the
context of the
individual, as
well as the self in
relation to others,
to society and to



humanity.



with individuals, couples, families, groups, and communities. Our graduates are employed in a wide range of organizational settings, including education, social service, law enforcement, and private industry.

The curriculum (or study plan) is comprised of 48 units, delivered in four phases. Phase I is introductory. Phases II and III form the body of core training in counseling. Phase IV comprises the concentration in Marriage, Family and Child Counseling and the final project.

Conditionally Classified Standing

Phase I 12 units: Counseling 500, 505, 511, 518

### Classified Standing

Phase II 12 units: Counseling 520, 522, 523, 526
Phase III 12 units: Counseling 521, 527, 528, 529 or 530

Phase IV 12 units: Counseling 561, 562, 584, 597

### MASTER OF SCIENCE IN COUNSELING

### Admission

The Department welcomes applicants from diverse academic, social, and cultural backgrounds. International and minority students are especially encouraged to apply. Preparation for the counseling profession is rigorous and multifaceted, necessitating the student's development in intrapersonal, interpersonal, and academic realms. Admission is therefore based upon indicators of the applicant's potential for becoming an effective counseling practitioner, including but not limited to grade point average (GPA), letters of reference, personal statement and departmental interview. Admission is not based on any single factor considered, but on a composite assessment of all factors. The following are required for consideration for admission to the program:

### **DEPARTMENT OF COUNSELING**

DIVISION OF CHILD, FAMILY, AND COMMUNITY SERVICES

### **DIVISION CHAIR**

Judith Ramirez

### **DEPARTMENT HEAD**

Vacant

### **DEPARTMENT OFFICE**

Education Classroom 105

### **PROGRAMS OFFERED**

Master of Science in Counseling

Marriage, Family and Child Counselor

MFCC Licensure Preparation

### FACULTY

Debra P. Behrens, Joseph M. Cerrantes, Gerald F. Corey, Pamela Downie, Kathy R. O'Byrne, Michael C. Parker, and David S. Shepard

### **ADVISERS**

Counseling, Master of Science: Judith Ramirez

Marriage, Family and Child Counselor (MFCC) Licensure: Kathy O'Byrne

- An acceptable bachelor's degree (or equivalent) from a regionally accredited institution or its equivalent.
- 2. A minimum GPA of 3.0 for the last 60 sequential semester units completed.
- 3. A minimum GPA of 3.2 in five prerequisite behavioral science courses (or their equivalents): counseling theory, experiential group, statistics or research methods, abnormal psychology, and human development. At least three of the five prerequisites must be completed at the time of entrance; any remaining prerequisite(s) must be completed during the first semester of enrollment.
- 4. A detailed personal statement (1,500-3,000 words). This statement should inform the faculty about the following:
  - a) applicant's personal and educational background, strengths and weaknesses
  - applicant's understanding of and motivation and suitability for entering into the counseling profession
  - c) applicant's long-term professional goals

### This statement is very important.

- 5. An interview with department faculty.
- 6. Three letters of recommendation. These letters should address the author's assessment of your suitability for pursuing graduate studies and entering the counseling profession. At least one letter must be academic (i.e., written by a professor or an instructor). Professional references, written by supervisors or managers who are familiar with your work, are also appropriate.

Applicants should apply directly to the Office of Admissions and Records, California State University, Fullerton, P.O. Box 6900, Fullerton, CA 92834-6900. The application code is #08261. Letters of recommendation, the personal statement, and additional information should be sent to the Department Head, Department of Counseling, P.O. Box 6868, Fullerton, CA 92834-6868. The application deadlines are April 1st for Fall admission and November 1st for Spring admission.

All successful applicants are initially admitted as conditionally classified graduate students. They are invited to attend an orientation session before classes begin, and are encouraged to join the Graduate Counseling Students Association (GCSA).

Applicants denied admission because they do not meet GPA requirements but who have a minimum GPA of 2.5 may enroll as an unclassified postbaccalaureate student, and reapply for admission to the Counseling program if and when they meet department requirements.

The department recommends that students take at least six units per semester. Students working full-time are strongly advised against taking more than six units per semester because of the demanding nature of the program; however, students should be aware of time limits for completion of the degree and of the possibility that they may be unable to enroll in a specific course because of the class size limits or other factors.

### Advisement

Each student is assigned to an adviser upon admission to the department. Advisers provide academic assistance, help students develop official study plans, recommend them for classified standing and advancement to candidacy, and monitor their progress throughout the duration of enrollment.

Students should consult their adviser on a regular basis. It is especially important to initiate contact with an adviser as soon as possible during the first semester of enrollment to verify enrollment in any remaining prerequisite courses and to discuss preclassification requirements.

### Classification and Advancement to

### Candidacy

Admission to the department as a conditionally classified student does not guarantee advancement to classified standing.

Each student undergoes two comprehensive evaluations; one during Phase I and the other during Phase III. Advancement to classified standing or to candidacy requires a 3.0 GPA and the faculty's on-going assessment of the student's aptitude and suitability for the counseling profession, progress in skill development, interpersonal and cultural sensitivity, and ethical and professional conduct. A student in classified graduate standing may be declassified with a change to unclassified post baccalaureate standing if current academic, personal, and professional development shows a lack of suitability for continued training in counseling. (See the "Graduate Regulations" section of the University catalog for details concerning advancement to classified standing or candidacy.)

# MARRIAGE, FAMILY, AND CHILD COUNSELOR MFCC LICENSURE

To practice as a Marriage, Family and Child Counselor in California, a license issued by the State Board of Behavioral Sciences (BBS) is required. Our 48-unit program with the MFCC concentration is designed to prepare students to meet licensure requirements (Business and Professions Code, Section 4980.37). Students should note that licensure requirements extend beyond those of the M.S. degree and include an internship and passing official written and oral examinations. It is the student's responsibility to keep informed about licensure requirements as they are subject to change from time to time. An authoritative source of information is Laws and Regulations Relating to the Practice of Marriage, Family and Child Counseling, Licensed Clinical Social Work, and Licensed Educational Psychology issued by the BBS. For further information, write to the Board of Behavorial Sciences, Department of Consumer Affairs, 400 R Street, Suite 3150, Sacramento, CA 95814-6240; Tel. (916) 445-4933.

Upon graduation, students have 90 days to register with the BBS as an intern. It is advisable to write early to the BBS for a registration packet (e.g., at the beginning of the last semester).

### **COUNSELING COURSES**

# 252 Career Exploration and Life Planning (3)

Exploration of personal career potentials, employment trends, decision making, goal setting and job search methods.

# 380 Theories and Techniques of Counseling (3)

(Same as Human Services 380)

### 449 Seminar on Child Abuse (1)

Prerequisite: Human Services 201 or Child/Adolescent Studies 301 or consent of the instructor. Presents characteristics of child abuse and a review of current laws, appropriate procedures for intervention, and methods of community networking and referral. (Same as Child/Adolescent Studies 449)

### 475T Counseling Special Populations (3)

Prerequisites: upper division standing and completion of introductory social science General Education class (III.C). Counseling assessment and treatment of specific client groups. Various topics will be covered depending on the specialized training and expertise of instructor. May be repeated with different topic for additional credit.

### 480 Case Analysis and Intervention Techniques (3)

(Same as Human Services 480)

### 500 The Counseling Profession (3)

Prerequisites: graduate standing and completion of or concurrent enrollment in Human Services 300 and Human Services/Counseling 380. The study of counseling as a mental health profession, including its history, current functions and future directions; examination of the counselor as a professional, including educational goals, personal values, and cultural understandings. Opportunity to observe master counselors at work.

### 505 Science of Human Inquiry I (3)

Prerequisites: graduate standing and completion of Psychology 201 or Psychology 202, or equivalent undergraduate course in social science research methodology or statistics. Foundations and characteristics of scientific models of human inquiry. Comparative review of experimental, naturalistic, and phenomenological modes of inquiry as applied to the counseling domain. Instruction and practicum in observation methods. Meets graduate writing requirement.

### 511 Pre-Practicum (3)

Prerequisites: Psychology 341 or equivalent; completion of or concurrent enrollment in Counseling 500 and 505. The change process and the counseling relationship. Prepracticum skills with an emphasis on crisis intervention.

### 518 Human Development and Functioning (3)

Prerequisites: Psychology 341; Child Development 312 or Psychology 361 or equivalent; completion of or concurrent enrollment in Counseling 500 and 505. Integrated study of lifespan development with a focus on definitions of normal and abnormal functioning. Introduction to the latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM).

### 520 Modes of Individual Counseling (3)

Prerequisite: completion of or concurrent enrollment in Counseling 511. Advanced counseling theories related to counseling of individuals. Evolution of personal and formal models of practice. Emphasis on role plays and skills applications.

### 521 Science of Human Inquiry II (3)

Prerequisite: Counseling 505. Applied research methods and program evaluation. Comparative review and synthesis of inquiry approaches. Completion of literature review for anticipated Counseling 597 project.

# 522 Techniques of Brief Treatment and Assessment (3)

Prerequisite: Counseling 511. Advanced study of the latest edition of the Diagnostic and Statistical Manual of Mental Health Disorders (DSM) with emphasis on detection and assessment of alcohol and substance, spousal or partner, elder, and child abuse, and human sexual dysfunction. Review of brief treatment models.

### 523 Counseling and Culture (3)

Prerequisite: Counseling 500. Theory, research, and techniques related to counseling people from diverse cultural backgrounds. Emphasis on role plays and skills applications.

### 526 Professional, Ethical and Legal Issues in Counseling (3)

Prerequisites: Counseling 500 and 511. Ethical and legal standards as related to critical professional issues, including child abuse, spousal or partner abuse, elder abuse, and substance abuse. The relationship and integration of values for the counselor's role in practice, training, supervision, test usage, and consultation.

### 527 Systems of Family Counseling (3)

Prerequisite: Counseling 520. Survey of family systems models, including Adler, Satir, Bowen, Haley, Minuchin, and others.

### 528 Groups: Process and Practice (3)

Prerequistes: Counseling 500 and 511.
Basic issues and concepts related to group process. Demonstration of group leadership skills with an emphasis on self-reflection.

### 529 Practicum: Supervised Counseling of Children or Adolescents (3)

Prerequisites: classified standing; Counseling 523; consent of fieldwork coordinator. Supervised clinical practice with children or adolescents in approved community agencies. A minimum of 105 contact hours of counseling required for course completion.

# 530 Practicum: Supervised Counseling of Adults (3)

Prerequisites: classified standing; Counseling 523; consent of fieldwork coordinator. Supervised clinical practice with adults in approved community agencies. A minimum of 105 contact hours of counseling required for course completion.

# 561 Clinical Assessment of Family Systems (3)

Prerequisite: Counseling 527.
Relationships and families examined in depth with reflection on own family background.
Assessment of "normal" and dysfunctional family systems, including human sexual dysfunction, emphasized. Application to role plays and case studies.

### 562 Counseling Couples and Families (3)

Prerequisite: Completion of or concurrent enrollment in Counseling 529 or 530.

Therapeutic interventions and techniques for couples and family systems. Emphasis on role plays and case studies.

### 575T Professional Issues in Counseling (3)

Prerequisite: graduate standing.
Exploration of contemporary contextual issues facing the practicing counseling professional. The topics offered depend on the specialized training and experience of instructor. May be repeated for credit with different topic. Current topics include clinical supervision, program evaluation, career development, and consultation.

### 584 Advanced Practicum (3)

Prerequisites: Counseling 529 or 530; approval of fieldwork coordinator. Advanced clinical experience in approved community agencies. Exposure to testing. A minimum of 105 contact hours of counseling required for course completion.

### 597 Project (3)

Prerequisite: consent of faculty adviser. Capstone program experience; taken final semester. Student conducts original research relevant to the counseling field.

### 598 Thesis (1-3)

Prerequisites: Counseling 529 or 530; consent of graduate program adviser. Independent research culminating in a thesis. Recommended for pre-doctoral students. May be repeated for credit.

### 599 Independent Study (1-3)

Prerequisite: consent of instructor or graduate program adviser. Research and development in counseling pursued independently with periodic conference with instructor. May be repeated for credit.

# criminal justice

#### INTRODUCTION

Criminal justice is the study of the causes, consequences and control of crime. Like other new and developing fields, criminal justice is difficult to define as it draws from a number of different disciplines, including psychology, public administration, philosophy, political science, sociology and law.

The program leading to the Bachelor of Arts in Criminal Justice is designed to acquaint pre-

service and inservice students with the principles and practices of criminal justice in America. Although the department's curriculum allows for the development of depth in one of the subject's substantive sub-

systems (i.e., law enforce-



ment, courts or corrections), the overriding objective is to familiarize students with activities in all the above areas

The department is both academic and professional in that it is an interdisciplinary attempt to relate intellectual issues and practitioner perspectives to the challenge of crime in a free society. In this regard, the department provides preparation for employment with a related agency and/or further study (e.g., law school).

#### **ADVISEMENT**

Students are urged to attend a "New Major Advisement Session" prior to their first semester at the university as a criminal justice major. This is particularly important for community college transfers. Failure to do so may delay graduation. The department's "New Major Advisement Sessions" are regularly and frequently scheduled. See the bulletin board or call the division office for details.

#### **AWARDS IN CRIMINAL JUSTICE**

Graduating seniors are eligible for the Academics Award, the Activities Award, the Overall Achievement Award and the William Hobbs Scholarship for outstanding senior scholastic achievement. The Junior Achievement Recognition Award is provided to an outstanding junior undergraduate. The Dan Byrnes Scholarship is given annually to an undergraduate who plans a career in law enforcement.

#### **BACHELOR OF ARTS IN CRIMINAL JUSTICE**

Every student must complete the core courses (21 units) and a minimum of 12 units from the elective curriculum. In addition, each student is required to complete 9 units in a correlated curriculum.

# DIVISION OF POLITICAL SCIENCE AND CRIMINAL JUSTICE

#### DIVISION CHAIR:

Keith O. Boyum

#### **DIVISION OFFICE:**

University Hall 511

#### **PROGRAMS OFFERED**

Bachelor of Arts in Criminal Justice

Minor in Criminal Justice

#### **FACULTY**

Rhonda Allen, W. Garrett Capune, George M. Dery, III, James Farris, James Lasley, Kevin Meehan, Jill Rosenbaum, Brenda Vogel For current information regarding the criminal justice program and its courses, check with the Division office in University Hall 511.

#### Core Curriculum (21 units)

Crim Just 300 Introduction to Criminal Justice (3)

Crim Just 310A Criminal Law: Substantive (3)

Crim Just 315 The Enforcement Function (3)

Crim Just 320 Introduction to Public Management and Policy (3)

Crim Just 330 Crime and Delinquency (3)

Crim Just 340 Criminal Justice Research Methodology (3)

Crim Just 345 Corrections (3)

#### Elective Curriculum (12 units)

Crim Just 310B Criminal Law: Procedural (3)

Crim Just 350 Principles and Concepts of Investigation and Reporting (3)

Crim Just 360 Comparative Criminal Justice (3)

Crim Just 422 Human Resources Management (3)

Crim Just 425 Juvenile Justice Administration (3)

Crim Just 430 Women and Crime (3)

Crim Just 440 Minorities and the Criminal Justice System (3)

Crim Just 450 Organized Crime and Intelligence Analysis (3)

Crim Just 455 Gangs and the Criminal Justice System (3)

Crim Just 462 Crime Analysis (3)

Crim Just 465 Law, Punishment, and Justice (3)

Crim Just 472 The Judicial Process

Crim Just 475T Topics in Administration of Justice: A Seminar (3)

Crim Just 480 Courtroom Evidence (3)

Crim Just 485 Search, Seizure and Interrogation I (3)

Crim Just 486 Search, Seizure and Interrogation II (3)

Crim Just 495 Internships (3)

Crim Just 499 Independent Study (1-3)

#### Correlated Curriculum (9 units)

Courses in the related fields shall be selected by the student in consultation with an adviser. The purpose of this requirement is to allow for an awareness of the disciplines contributing to the creation of "criminal justice" as a separate subject. Upper division courses in such fields as philosophy, political science, psychology and sociology may be considered in this regard. For a list of courses that can count in this regard, check with the Division office.

#### Writing Requirement (3 units)

One of the following courses:

Crim Just 350 Principles and Concepts of Investigation and Reporting (3)

English 301 Advanced College Writing (3) English 365 Legal Writing (3)

For further information on these alternatives, please see the Criminal Justice adviser.

#### **MINOR IN CRIMINAL JUSTICE**

The Minor in Criminal Justice consists of a total of 18 units including three required and three elective courses to be chosen from the criminal justice curriculum. The required courses are:

Crim Just 300 Intro to Criminal Justice (3)

Crim Just 310A Criminal Law:

Substantive (3)

Crim Just 330 Crime and Delinquency (3)

#### **CRIMINAL JUSTICE COURSES**

#### 300 Introduction to Criminal Justice (3)

A study of the underlying ideological issues confronting America's system of criminal justice, with an emphasis on key concepts in conflict (law and order, rehabilitation vs. retribution, etc.)

#### 310A Criminal Law: Substantive (3)

The general doctrines of criminal liability in the United States and the classification of crimes as against persons, property and the public welfare. The concept of governmental sanction of the conduct of the individual.

#### 310B Criminal Law: Procedural (3)

Legal problems associated with the investigation of crime, the acquisition of evidence, the commencement of a criminal proceeding, the prosecution and defense of charges, sentencing and appeal. The development of existing procedures and examination of current efforts for reform.

# 315 The Enforcement Function (3) (Formerly 415)

Prerequisite: Crim Just 300 or consent of instructor. The historical and philosophical development of the enforcement function at federal, state and local levels; community controls, political pressures and legal limitations pertaining to law enforcement agencies at each level of government; police policies and problems vis-a-vis the administration of justice as a system.

# 320 Introduction to Public Management and Policy (3)

Introduction to the field of public administration. The course emphasizes current trends and problems of public sector agencies in such areas as organization behavior, public budgeting, personnel, planning, and policy making. Examples and cases from the criminal justice field are emphasized. (Same as Poli Sci 320)

#### 330 Crime and Delinquency (3)

The nature and extent of criminality; traditional and topical theories regarding etiology; research methods, sociological and psychological theories.

#### 340 Criminal Justice Research Methodology (3)

Elementary statistics including descriptives, measurements and tests; data collection methods for effort evaluation and program prediction; systems analysis techniques.

#### 345 Corrections (3) (Formerly 445)

Prerequisite: Crim Just 300 or consent of instructor. An overview of the origins, processes, organization, and contemporary trends of corrections in America. Course will target management, control, and treatment of adult and juvenile offenders in both institutions and community programs.

#### 350 Principles and Concepts of Investigation and Reporting (3)

Prerequisite: Crim Just 300 or consent of instructor. Principles of investigative activity practiced by police, courts and correctional subsystems. Reporting procedures and requirements. Meets classroom portion of upper-division writing requirement for Criminal Justice majors, or as an elective in the concentration curriculum.

#### 360 Comparative Criminal Justice (3)

Prerequisite: Crim Just 300. A crossnational survey of crime and the administration of justice, including comparative considerations of forms and rates of criminality along with an analysis of the respective responses of police, court, corrections. Related research efforts will also be reviewed.

# **422** Human Resources Management (3) (Same as Poli Sci 422)

#### 425 Juvenile Justice Administration (3)

Prerequisite: Crim Just 300 or consent of instructor. Definitions of "delinquency" and the related responses of the interested institutions (police, courts and correction); the juvenile court (past and present), and prevention and correction programs (practicing and proposed).

#### 430 Women and Crime (3)

Prerequisite: Crim Just 300 or Philosophy 302. An examination of women as criminals and victims, gender differences in criminal behavior and the role of women as professionals in the criminal justice system.

# 440 Minorities and the Criminal Justice System (3)

Prerequisite: Crim Just 300 or consent of instructor. An introduction to the issues surrounding the charges of overt and indirect institutionalized racism in the criminal justice system. An overview of patterns of criminal behavior among minority groups in the U.S. will be discussed.

#### 450 Organized Crime and Intelligence Analysis (3)

Prerequisite: Crim Just 300. History and development of organized crime. Current criminological strategies of control of organizational crime. Systems theories and other analytical techniques of police intelligence.

#### 455 Gangs and the Criminal Justice System (3)

Prerequisites: Crim Just 300 or consent of instructor. Causal factors of, and legal solutions to, gang related crime in the United States are examined. Relevance of sociological, psychological, economic, and educational deviance theories to justice intervention strategies is emphasized.

#### 462 Crime Analysis (3)

Prerequisites: Crim Just 300 and 340. This course will examine the crime analysis function within the law enforcement organization, demonstrate how to develop, implement and operate a crime analysis unit, and discuss the nexus between crime analysis, field and investigative operations, and administrative bureaus.

#### 465 Law, Punishment and Justice (3)

Prerequisite: Crim Just 300. Theoretical scholarship in criminal justice is increasingly concerned with law in relation to delivery of justice and practices of punishment. Students will examine the rule of law, question whether justice is different from law, and review the role punishment plays.

# 472 The Judicial Process (3) (Formerly 435)

Prerequisites: Crim Just 300 or Poli Sci 375, or consent of instructor. The nature, functions and roles of courts. Roles of major participants in the American legal system, including judges, attorneys and citizens. The administration of justice as a system. (Same as Pol Sci 472)

# 475T Topics in Administration of Justice: A Seminar (3)

Prerequisite: Crim Just 300 or consent of instructor. Current social, legal and practical problems confronting police, courts and corrections. A "variable topic" class with specific subjects to be announced each semester.

#### 480 Courtroom Evidence (3)

Prerequisite: Crim Just 300 or consent of instructor. The rules of evidence in the context of a criminal trial in a California court. The rules, their application and their rationale. Lecture, discussion and simulated courtroom situations.

# 485 Search, Seizure and Interrogation I (3)

Prerequisite: Crim Just 300 or consent of instructor. Analysis of the laws that apply in common street search-and-seizure and interrogation situations in California; how they have evolved, and what developments are anticipated.

# 486 Search, Seizure and Interrogation II (3)

Prerequisite: Crim Just 300 or consent of instructor. An analysis of the laws that apply in some search-and-seizure and interrogation situations, such as those involving the border patrol and school officials.

#### 495 Internships (3)

Prerequisites: Crim Just 300 and consent of instructor. The criminal justice professions; eight to 20 hours per week as a supervised intern in a public agency or related organization. In addition to the job experience, interns meet in a weekly three-hour seminar.

#### 499 Independent Study (1-3)

Prerequisites: at least 12 hours of criminal justice and consent of adviser. Student selects an individual research project, either library or field. Conferences with adviser as necessary, culminating in one or more papers. May be repeated for credit.

# economics

#### DEPARTMENT CHAIR

David Wong

#### **DEPARTMENT OFFICE**

Langsdorf Hall 702

#### **CENTER FOR ECONOMIC EDUCATION**

Robert Kleinbenz, Director Langsdorf Hall 350

#### PROGRAMS OFFERED

Bachelor of Arts in Business
Administration
Concentration in Business Economics
Bachelor of Arts in Economics
Minor in Economics
Master of Arts in Economics
Master of Business Administration
Concentration in Business Economics

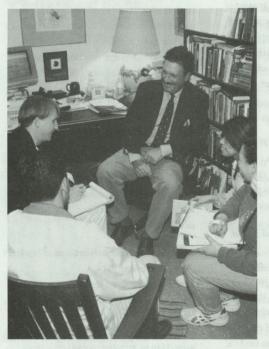
#### **FACULTY**

Robert Ayanian, Radha Bhattacharya, Victor Brajer, Kwang-wen Chu, James Dietz, Vincent Dropsy, Andrew Gill, Jane Hall, Walter Hettich, Stewart Long, Robert Michaels, Howard Naish, Anil Puri, Dipankar Purkayastha, Morteza Rahmatian, Eric Solberg, Murray Wolfson, David Wong

#### INTRODUCTION

As a scholarly discipline, economics is over two centuries old, dating back to the French physiocrats and Adam Smith in the 18th century. The nature of economic analysis has been described by John Maynard Keynes as ". . . a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessors to draw correct conclusions."

Economic methods are used to study a basic question which faces all societies: how should



limited resources be used to produce goods and how should that production be distributed? Not all wants can be satisfied because resources and knowledge are limited. Therefore, societies are faced with choices. These choices are made in different ways: by custom, by command and centralized control, or by a system of markets and prices as in our mixed economy. Economists examine alternative solutions to the basic economic problem by analyzing costs and benefits of changing existing patterns of resource use.

Economists work in many specialties including money and banking, international trade and finance, labor, public finance, industrial policy, environment and natural resources, business

cycles and forecasting. Social issues and problems such as poverty, crime, discrimination, immigration, aging, energy, pollution and education are typical subjects of faculty research.

The faculty of the Economics Department participate in programs leading to both undergraduate and graduate degrees. One undergraduate program leads to a bachelor of arts degree with a major in economics. Another undergraduate program leads to a bachelor of arts degree with a major in business administration and a concentration in business economics and requires a larger number of business courses. Both programs prepare the student for a variety of career opportunities in business and government as well as advanced studies in economics, business, public administration and law. Graduate study is offered in economics, leading to a master of arts degree. Alternatively, students may follow the Master of Business Administration curriculum, with a concentration in business economics.

#### **ADVISERS**

The Business Advising Center, Langsdorf Hall 700, provides information on admission, curriculum and graduation requirements; registration and grading procedures; and residence and similar academic matters. In addition, all economics majors should see a faculty adviser in the Department of Economics for information on career opportunities and advanced study. Undergraduates should consult the department office for the name of their faculty adviser.

Graduate students should consult the graduate adviser, Walter Hettich.

#### Credential Information

For students interested in a teaching credential, the Department of Economics offers courses which may be included in Subject Matter Preparation Programs and Supplementary Authorization Programs for elementary and secondary teaching.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department Office for Elementary and Bilingual Education and the Department Office for Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education, Education Classroom 207.

#### Awards in Economics

Formuzis, Pickersgill, and Hunt Student Paper Award

Outstanding Senior in Economics
Outstanding Graduate Student in Economics

Wall Street Journal Student Achievement Award

#### **BACHELOR OF ARTS IN ECONOMICS**

Admission to the Economics major involves two steps. Students who apply to the major are initially classified as Pre-economics. After completing the lower-division core requirements with grades of at least C, students may apply to the Economics major. Pre-economics students may take lower-division business and economics courses, but most upper-division courses are not open to Pre-economics students.

All of the following requirements must be met for the degree. Students must earn a grade of at least *C* in each course listed below. However, a *C* average will be acceptable in the upper division economics electives. For assistance in interpreting these requirements contact the Business Advising Center, Langsdorf Hall 700. Students should also contact their faculty adviser in the Economics Department prior to or during their first semester.

#### Required Lower-Division Courses

Accounting 201A Financial Accounting (3)

Bus Administration 201 Business Writing (3)

Economics 201 Principles of

Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Economics 440 Introduction to

Econometrics (3)

OR Math 150B Analytic Geometry and Calculus (4)

OR Accounting 201B Managerial Accounting (3)

Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3)

Math 135 Business Calculus (3)

OR Math 130 A Short Course in Calculus (4)

OR Math 150A Analytic Geometry and Calculus (4)

#### Required Upper-Division Courses

Business Adminstration 301 Advanced
Business Communication (3)

Economics 310 Intermediate Microeconomic Analysis (3)

Economics 320 Intermediate Macroeconomic Analysis (3)

Economics 340 Economic Research Methods (3)

Manag Sci/Info Sys 361A Quantitative Business Analysis: Probability & Statistics (3)

and 15 units of upper-division economics electives, 6 units of which must be 400 level. No more than 3 units of independent study may be used to meet the 400 level electives requirement.

## Other Requirements, Grades and Residence

Other Subjects. Complete at least 50 percent of the coursework for the degree outside the School of Business Administration and Economics. The department recommends that these courses be from the social sciences and mathematics. Students planning to do graduate work in economics are advised to take Math 150A,B; Economics 440 and Economics 441. Complete all university requirements for the bachelor's degree.

Grade-Point Average (GPA). Attain at least a 2.0 GPA (C average) in all university courses and in the upper-division economics electives. Earn at least a C grade in each course required for the major (other than the upper-division economics electives).

Grade Option. Take all required courses in economics, accounting and management science/information systems for a letter grade

(A,B,C,D,F). The credit/no credit grading option may not be used for these courses, and a grade of CR (credit) will not satisfy the requirements for the degree. Exception: courses in calculus may be taken under the credit/no credit grading option; however, if it is also taken to meet general education requirements, then it must be taken for a letter grade.

Residence. At least 15 units of courses must be taken in residence at the School of Business Administration and Economics at Cal State Fullerton. Also fulfill university residence requirements.

## BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Business Economics Concentration."

#### **MINOR IN ECONOMICS**

The economics minor covers the basics in the discipline of economics and gives students the opportunity to explore personal interests through electives. Note that a course in calculus (Math 135 or equivalent) is prerequisite to Economics 310 and 320. Students must earn a grade of at least C in each course listed below.

#### Required Lower-Division Courses

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

#### Required Upper-Division Courses

Business Administration 301 Advanced Business Communications (3)

Economics 310 Intermediate Microeconomics Analysis (3)

OR Economics 315 Intermediate Business Microeconomics (3)

Economics 320 Intermediate

Macroeconomics Analysis (3)

and 9 units of upper-division economics elec-

Note: Students with a major in business administration and a concentration other than economics, who wish to minor in economics, must take Economics 201, 202, and 310 as part of their major. For such students, these requirements in the minor will be waived and the minor will consist of Economics 320 and nine units of upper-division economics electives. Students with a major in business administration and a con-

centration in business economics may not also minor in economics.

#### **MASTER OF BUSINESS ADMINISTRATION**

See "Business Administration, Business Economics Concentration."

#### **MASTER OF ARTS IN ECONOMICS**

This program provides preparation for professional careers in private industry and government and provides a foundation for further graduate work at the doctoral level. Full-time and part-time students can be accommodated. Most of the courses are scheduled in the evening.

The curriculum is designed for students with an undergraduate degree in business administration or economics, and consists of 10 courses (30 units). Provided that all prerequisites have been satisfied, the program may be completed in one year (full-time) or two and one-half years (part-time).

The required courses progress from economic theory through economic model building and estimation to the seminar in which the student prepares a thesis applying economic theory and econometric methods to a specific area of investigation. The curriculum also includes five courses (15 units) of electives.

Most graduate courses in the School of Business Administration and Economics require classified "SBAE status" and are open only to students with classified standing in the M.A. in Economics, M.B.A., M.S. in Accountancy, M.S. in Management Science, or M.S. in Taxation programs.

#### Admission

Students meeting the following requirements will be admitted to post-baccalaureate-unclassified standing:

- Acceptable bachelor's degree from appropriately accredited institution, or equivalent.
- Grade-point average of at least 2.5 in the last 60 semester units attempted, and in good standing at last college attended.

Postbaccalaureate-unclassified students may enroll in undergraduate courses (100 through 400 level) but are generally ineligible for graduate economics courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student

may file an Application for Change of Academic Objective-Graduate requesting admission to the M.A. in Economics program. Admission to the university as a postbaccalaureate-unclassified student does not constitute admission to the program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the program should confer with the graduate adviser in the Department of Economics.

Students meeting the following departmental requirements will be admitted with conditionally classified standing:

- 3. Overall undergraduate GPA of at least 2.5.
- 4. An average score of 500 on the Graduate Record Examination (G.R.E.).
- 5. For international students a TOEFL score of 570. A student scoring between 550 and 570 may be admitted conditionally depending upon an evaluation of the entire application file. The student may be required to complete a department approved course(s).

Conditionally classified students may take a limited number of courses at the graduate level, subject to the approval of the graduate adviser of the Department of Economics. Students are expected to advance promptly to classified standing.

Students meeting the following additional requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they are qualified.

6. Completion of the following courses at Cal State Fullerton (or equivalent courses at other institutions) with a grade-point average of at least 3.0 (B average). The course in calculus must have a grade of at least C.

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Economics 310 Intermediate
Microeconomic Analysis (3)

Economics 320 Intermediate

Macroeconomic Analysis (3)

Economics 420 Money and Banking (3)
OR three units of upper-division electives

Manag Sci/Info Sys 361A Quantitative
Business Analysis: Probability and
Statistics (3)

Mathematics 135 Business Calculus (3)

7. Approval of study plan.

#### Curriculum

Students are urged to meet as soon as possible with the graduate adviser in the Department of Economics to file a study plan and advance to classified standing.

Any study plan course in which a D grade is received must be repeated with at least a C grade, regardless of the overall grade-point average of the student.

#### Required Core Courses (12 units)

Economics 440 Introduction to Econometrics (3)

Economics 441 Introduction to Mathematical Economics (3)

Economics 502 Advanced Microeconomic Analysis (3)

Economics 503 Advanced Macroeconomic Analysis (3)

#### Area & Elective Courses (15 units)

Area courses require nine units chosen from the student's field of interest. Coursework may focus on the following areas: (1) environmental and natural resource economics (Economics 416, 461, 462, 590), (2) international economics and finance (Economics 411, 433, 590), and (3) applied economic analysis involving course work related to industrial organization and labor (Economics 410, 412, 413, 505) or the public sector (Economics 416, 417, 420, 421, 505).

Among field and elective courses, six units must be taken at the 500 level and at least six units must be in economics. The remaining units in the student's program can be chosen from course offerings in economics or related areas of study.

Terminal Evaluation (3 units)
Economics 598 Thesis Research (3)

#### **ECONOMICS COURSES**

#### 100 The Economic Environment (3)

The application of economics to the problems of unemployment and inflation, the distribution of income, competition and monopoly, the role of government in the economy, and other policy issues. Not open to prebusiness, business administration majors or minors, economics majors or minors, or international business majors.

#### 201 Principles of Microeconomics (3)

Principles of individual consumer and producer decision-making in various market structures; the price system; market performance and government policy.

#### 202 Principles of Macroeconomics (3)

Prerequisite: Economics 201. Principles of macroeconomic analysis and policy; unemployment and inflation; financial institutions; international trade; economic growth; comparative systems.

#### 310 Intermediate Microeconomic Analysis (3)

Prerequisites: Economics 202 and Mathematics 135. Corequisites: Business Admin 301 and Manag Sci/Info Sys 361A or equivalent. Rational decision-making behavior of consumers and firms, and price and output determination in markets. Primarily for economics majors, but open to all students who qualify.

#### 315 Intermediate Business Microeconomics (3)

Prerequisites: Economics 202 and Mathematics 135. Corequisites: Business Admin 301 and Manag Sci/Info Sys 361A or equivalent. Analysis of business decisions in alternative market structures with special emphasis on problem solving in a business context using economic concepts and methods. Not open to economics majors. Students may not receive credit for both Economics 310 and 315.

#### 320 Intermediate Macroeconomic Analysis (3)

Prerequisites: Economics 202 and Math 135. Corequisites: Business Admin 301, Manag Sci/Info Sys 361A or equivalent. The determinants of the level of national income, employment and prices, and monetary and fiscal policies.

#### 330 Comparative Economic Systems (3)

Prerequisite: Economics 100 or 201. Alternative economic systems; their theoretical foundations, actual economic institutions, and achievements and failures. Contrast between socialist and capitalist systems.

#### 331 Economies in Transition (3)

Prerequisite: Economics 100 or 201. The transformation from centrally-planned to market-oriented economies in Russia and Eastern Europe. Focuses on the economic, social and political costs and benefits involved in the restructuring of economic systems.

#### 332 Economies of the Pacific Rim (3)

Prerequisite: Economics 100 or 201.

Dimensions of industrialization, agriculture, investment, human resources, and trade in economies of the Far East (including Japan and China), India, and related nations of the Pacific Rim.

# 333 Economic Development: Analysis and Case Studies (3)

Prerequisite: Economics 100 or 201. The processes of economic growth with references to developing areas. Capital formation, resource allocation, relation to the world economy, economic planning and institutional factors, with case studies.

# 334 Economics of Latin America and the Caribbean (3)

Prerequisite: Economics 100 or 201.
Corequisite: Business Admin 301. Examines regional economic problems within an international context: dependence, industrialization and the international corporation; agriculture; regional cooperation; inflation; trade and debt problems. Major economic thinkers will be discussed.

#### 335 The International Economy (3)

Prerequisite: Economics 100 or 201. The theory, practice and institutions of the international economy. International trade and investment, balance of payments, foreign exchange rates, multi-national enterprise, international economic policy. Current trade issues: European Community, trade with developing countries, Eastern Europe, and the states of the former Soviet Union; General Agreement on Tariffs and Trade (GATT) and other major trade agreements.

#### 340 Economic Research Methods (3)

Prerequisites: Economics 202, Manag Sci/Info Sys 361A or equivalent. This course will introduce the student to the basics of applied economic research. Students will learn how to access existing economic knowledge, locate and compile economic data, and analyze economic problems using theory and quantitative methods.

#### 350 American Economic History (3)

Prerequisite: Economics 100 or 201. The development of American economic institutions; economic problems, economic growth and economic welfare.

#### 351 European Economic History (3)

Prerequisite: Economics 100 or 201. The evolution of European Economic institutions and their relations to the development of industry, commerce, transportation and finance in the principal European countries.

#### 361 Urban Economics (3)

Prerequisite: Economics 100 or 201.

Theory and analysis of the urban economy, urban economic problems and policy.

#### 362 Environmental Economics (3)

Prerequisite: Economics 100 or 201. Economic analysis of environmental problems and related issues: externalities, property rights, social costs and benefits, user cost, rent and decision making under uncertainty.

#### 410 Government and Business (3)

Prerequisites: Business Admin 301, Economics 310 or equivalent. Business organization, conduct and performance; the rationale and impact of public policy on business and business activities, including the regulated industries, sick industries and antitrust policy.

#### 411 International Trade (3)

Prerequisite: Business Admin 301, Economics 310 or 315 or equivalent. The theory of international gains from free trade, effects of tariff and non-tariff barriers, and conduct of commercial policy. The balance of payments, the theories of exchange rate determination, and other international economic issues.

#### 412 Labor Economics (3)

Prerequisite: Business Admin 301, Economics 310 or equivalent. Labor supply and demand, labor force participation, employment, unemployment, human capital, wage differentials, disadvantaged labor market groups, discrimination and wagerelated income transfers.

#### 413 Law and Economics (3)

Prerequisite: Business Admin 301, Economics 310 or 315. An economic analysis of the common law—property, contract, and tort—focusing on the use of microeconomic theory to study the economic efficiency characteristics and effects of these laws. An emphasis will be placed on the analysis of specific legal cases.

#### 416 Benefit Cost and Microeconomic Policy Analysis (3)

Prerequisite: Business Admin 301, Economics 310 or equivalent. Application of microeconomic models and welfare economics to public policy. Concepts of economic efficiency, economic surplus and equity. Measurement of policy effects, including benefit-cost analysis, with applications to selected policy areas such as education and environmental programs.

#### 417 Public Finance (3)

Prerequisite: Business Admin 301, Economics 310 or equivalent. Government finance at the federal, state and local levels; the impact of taxation and spending on resource allocation, income distribution, stabilization and growth.

#### 420 Money and Banking (3)

Prerequisite: Business Admin 301, Economics 320 or equivalent. The money supply process and the impact of monetary policy on economic activity.

#### 421 Monetary and Fiscal Policy (3)

Prerequisite: Business Admin 301, Economics 320 or equivalent. The techniques of monetary and fiscal policy and their relative roles in promoting economic stability and growth.

# 431 International Macroeconomics and Growth (3)

Prerequisite: Business Admin 301, Economics 320. Macroeconomic analysis of the open economy: the impact of stabilization policies in a global economy, the role of the balance of payments, the international monetary system and growth in less developed countries.

# 433 The Less Developed Countries and the World Economy (3)

Prerequisites: Economics 310, 315, or 515; and Economics 320 or 521. In-depth analytical study of development and underdevelopment in the poorer countries in the context of a changing international economic order. Both the neo-classical and the political economy approaches will be discussed. Includes case studies from Asia, Africa, and Latin America.

#### 440 Introduction to Econometrics (3)

Prerequisites: Business Admin 301, Economics 202, Manag Sci/Info Sys 361A or equivalent. Economic measurement; specification and estimation of econometric models; statistical methods in economic research.

# 441 Introduction to Mathematical Economics (3)

Prerequisites: Business Admin 301, Economics 202 and Math 135 or equivalent. Economic theory from microeconomics and macroeconomics. Content varies; constrained optimization problems and rational decision-making.

#### 442 Economics of Conflict and Defense (3)

Prerequisites: Business Admin 301, Economics 310 and 320 or equivalent. Economic and strategic approaches to domestic and international conflict, public goods, defense, arms competition, and arms control. The effects of U.S. defense spending on the U.S. and international economy. Game theory and other theories of strategic behavior.

#### 450 History of Economic Thought (3)

Prerequisite: Business Admin 301, Economics 310 or 320. Major schools of thought and of leading individual economists as they influenced economic thought and policy.

#### 461 Ecological Economics (3)

Prerequisite: Business Admin 301, Economics 310 or 315 or equivalent. The application of economic concepts and methods to understanding the ways in which human economic behavior contributes to environmental and ecosystem degradation; the use of economic approaches to evaluate and manage these impacts; the design of sustainable economic policies.

#### 462 Natural Resource Economics (3)

Prerequisite: Business Admin 301, Economics 310 or 315 or equivalent.

Concepts and principles in the application of economics to issues in natural resource economics. Issues will include uncertainty and risk in investment, depletion over time, cartelization, the role of technological innovation and government intervention related to fuels, water, land, etc.

#### 495 Internship (1-3)

Prerequisites: Economics major with Business Admin 301, Manag Sci/Info Sys 361A, Economics 310 (or 320) (or the equivalents) or international business major with Economics 202 and 335, Manag Sci/Info Sys 361A (or the equivalents); and consent of the department internship adviser, at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for a total of six units credit. Credit/No Credit grading only.

#### 496 Student-to-Student Tutorial (1-3)

Prerequisites: economics major or concentration, Business Admin 301, Economics 310 and 320, senior standing, 3.0 GPA and consent of department chair. Student learns through teaching (tutoring) other students enrolled in principles and intermediate economics courses. Consult "Student-to-Student Tutorials" in this catalog for more information. May not be used to satisfy the elective requirements for the major or concentration in business economics. Credit/No Credit grading only.

#### 499 Independent Study (1-3)

Prerequisites: economics major or concentration, Business Admin 301, Economics 310 and 320 (or the equivalents), senior standing, and consent of department chair. Directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

#### 502 Advanced Microeconomic Analysis (3)

Prerequisites: Economics 310 and classified SBAE status. An advanced treatment of rational decision-making behavior of consumers and firms, the price system, and resource allocation in partial and general equilibrium settings. Topics include preference theory, welfare economics, gains from trade, monopoly power, external costs and benefits, public goods, factor markets, intertemporal decisions, risk and uncertainty.

#### 503 Advanced Macroeconomic Analysis (3)

Prerequisites: Economics 320 and classified SBAE status. The determination of employment, fluctuations of real and money income, and the forces underlying economic growth.

#### 505 Economic Models and Forecasting (3)

Prerequisites: Economics 440 and classified SBAE status. Statistical methods of econometric estimation and forecasting. Practical solutions to problems in model specification, estimation by regression, time series analysis and forecasting.

#### 515 The Price System and Resource Allocation (3)

Prerequisites: classified SBAE status and Math 135 or the equivalent. Microeconomic analysis and policy under mixed capitalism. The economic environment and institutions, markets, consumer choice, production and resource allocation. Monopoly power and government intervention. (Not open to M.A. Economic candidates.)

#### 516 Economics and Benefit-Cost Analysis (3)

Prerequisites: Economics 201 and classified graduate status in environmental studies or public administration. Economics and benefit-cost analysis of public projects.

Consumer demand and the estimation of benefits; the nature of cost in a market economy; price controls, unemployment and inflation; and criteria for choice for multi-year projects. For elective credit in the M.S. Environmental Studies or M.P.A.

#### 521 Macroeconomic Theory and Policy (3)

Prerequisites: Economics 310 or 515 and classified SBAE status. National income determination and macroeconomic models. Inflation and unemployment. Monetary and fiscal policies. International trade and foreign exchange (Not open to M.A. Economics candidates or students with credit for Economics 320.)

#### 531 International Economics (3)

Prerequisites: Economics 310 or 315 or 515; Economics 320 or 521. An introductory analysis of theories and current issues in international trade, finance, macroeconomics and growth, with an emphasis on business applications. (Not open to M.A. Economics candidates or students with credit for Economics 431.)

# 590 Topics in Economic Analysis and Policy (3)

Prerequisites: Economics 310 and 320; classified SBAE status. Contemporary research in areas such as: resource economics, history of economic thought, international monetary systems, forecasting, economics of planning, and human resource economics. May be repeated for credit.

#### 595 Current Research in Economics (3)

Prerequisite: classified graduate status in Economics or Economics 440, a 3.25 or better grade-point average and permission of the instructor. Students attend the departmental research seminar where faculty and outside speakers present papers dealing with recent and ongoing research. Students read material relevant to presentations and write analytical reports covering five seminar meetings. May be repeated once for credit.

#### 597 Project (3)

Open to qualified graduate students. Directed independent inquiry. Not open to students on academic probation.

#### 598 Thesis Research (3)

Prerequisites: Economics 502, 503 and classified SBAE status. Corequisite: Economics 505. Selection and approval of topic, outline, methodology; literature survey; data collection and analysis, and presentation of results. Award of the grade is contingent upon the completion and acceptance of the thesis.

#### 599 Independent Graduate Research (1-3)

Prerequisites: Economics 440, 502 and 503; classified graduate status; and consent of instructor and department chair (or designee). Directed advanced independent inquiry. May be repeated for credit. Not open to students on academic probation.

# educational

#### MISSION

Our mission is to prepare school leaders who demonstrate strategic, instructional, organizational, political and community leadership; and to provide the community a source of scholarship and assistance in interpretation and application of scholarship.

#### **GOALS OF THE DEPARTMENT**

To prepare school leaders who demonstrate the knowledge, skills, attributes and commitment necessary for:

#### **DIVISION CHAIR:**

Vacant

#### **DEPARTMENT HEAD:**

Louise Adler

#### **DEPARTMENT OFFICE:**

Education Classroom Building 379

#### **PROGRAMS OFFERED**

Master of Science in Education

Concentration in Educational Administration

Administrative Services Credential Programs

Preliminary and Professional

#### **FACULTY**

Louise Adler, Walter Beckman, William Callison, Ron Oliver, Stanley Rothstein



#### Strategic Leadership

Develop with others vision and purpose, utilize information, frame problems, exercise leadership processes to achieve common goals and act ethically for educational communities.

#### Instructional Leadership

Design appropriate curricula and instructional programs with others to develop

learner centered school cultures, to assess outcomes, to provide student personnel services, and to plan with faculty professional development activities aimed at improving instruction.

#### Organizational Leadership

Understand, initiate and/or improve the organization, implement operational plans, manage financial resources, and apply effective management processes and procedures.

#### Political Leadership

Act in accordance with legal provisions and statutory requirements, to apply regulatory standards, to develop and apply appropriate policies, to understand and act professionally regarding the ethical implications of policy initiatives and political actions, to relate public policy initiatives to student welfare, to understand schools as political systems.

#### Community Leadership

Collaborate with parents and community members; work with community agencies, foundations, and the private sector; and respond to community interests and needs in performing administrative responsibilities, and to develop effective staff communications and public relations programs; act as mediators for the various groups and individuals who are part of the school community.

#### PHILOSOPHY OF THE DEPARTMENT

Administration of schools for the 21st Century demands that education leaders demonstrate:

- commitment to high standards;
- strong ethical values;

- · credible instructional leadership;
- understanding of social and political trends and the changing role of education in our society;
- problem solving ability and the skills necessary to promote and adapt to change and use collaboration to build a shared vision for schools;
- capacity to collaborate effectively with a wide range of non-school agencies and community organizations which can help schools achieve their mission;
- commitment to life long learning which empowers students, staff, and themselves.

We believe that:

- every child must achieve academic success in school;
- every school must educate for an American democracy that values the norms and practices of diverse groups and at the same time celebrates shared community values;
- school leaders must be reflective practitioners:
- knowledge is evolving and socially constructed and that learning is produced through an interaction of different perspectives that enable students to connect their education to their experiences.

#### Policies of the Department

Candidates for our programs will be selected on the basis of leadership potential and commitment to the improvement of education, and will engage in a rigorous course of study.

The department is committed to a continual effort to plan and revise programs in collaboration with university colleagues, our students, and the leaders of the schools in the communities we serve.

# ADMINISTRATIVE SERVICES CREDENTIAL

The Administrative Services Credential programs of the Department of Educational Leadership are approved by the Commission for Teacher Credentialing. Because regulations governing these programs change, students should contact the department office for current information and requirements.

#### Preliminary Credential

The Preliminary Administrative Services Certificate/Credential is the "Step 1" administrative credential in California, requiring a total of 26-30 units of work (which may be incorporated into the student's master's degree program). Upon receipt of the Preliminary credential, one is eligible for employment as an administrator in California public schools. A Master's Degree is required for California State University to recommend a candidate for this credential.

#### **Professional Credential**

The Professional Administrative Services Credential is the "Step 2" administrative credential, requiring a total of 24 semester hours. Please note that the Preliminary Credential is a prerequisite to entry to the program for the Professional Credential.

#### FOR FURTHER INFORMATION

Please contact the Department office (EC-379), phone 278-7673.

# MASTER OF SCIENCE IN EDUCATION (EDUCATIONAL ADMINISTRATION)

The principal objective of the curriculum is to prepare carefully selected individuals for leadership positions in public schools. The program is designed to help these individuals gain the technical knowledge and scholarship requisite to high achievement in these positions.

#### Admission to Graduate Standing: Conditionally Classified

University requirements include: a baccalaureate degree from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see "Graduate Regulations" section of this catalog for complete statement and procedures). In addition, an applicant should have a successful teaching experience in an elementary or secondary school. (If such experience is not available, other experience in related fields is an alternative if approved by a graduate adviser before starting the program). A candidate portfolio is also required.

#### Graduate Standing: Classified

A student who meets the admission requirements and has a minimum 2.5 GPA in previous academic work may be granted classified graduate standing upon the development and approval of a study plan.

#### Study Plan

The study plan must include 30 units of course work. Course requirements include field experience and a project.

No more than nine units of postgraduate work taken prior to classified standing may be applied to a student's master's degree program. Students concentrating in Educational Administration will take 503 Organizational Leadership during the first semester. Students who desire only isolated courses from the program are normally denied admission to such courses. The adviser-approved 30 units (minimum) on the study plan will include:

Core Course Work (8 units)

Ed Admin 503 Organizational Leadership (3)

Ed Admin 505 Curriculum, Instruction and Assessment (3)

Ed Admin 510 Introduction to Educational Research (2)

Concentration Course Work (20 units)

Ed Admin 561 Policy, Governance, Community Relations (3)

Ed Admin 563 Human Resource Administration (2)

Ed Admin 564 School Law and Regulatory Process (3)

Ed Admin 565 School Finance (3)

Ed Admin 593 Meeting the Needs of Diverse Populations (2)

Ed Admin 566 Leadership in Elementary Schools (3)

OR Ed Admin 586 Leadership in Secondary Schools (3)

Ed Admin 567A,B,C,D Fieldwork (1,1,1,1)

Project (2 units)

Ed Admin 597 Project (1,1)

For advisement and further information, consult the graduate program adviser.

# EDUCATIONAL ADMINISTRATION COURSES

# 501A Induction Planning and Assessment of Competence (2)

Prerequisite: admission to Professional Credential program. The credential candidate in collaboration with the university instructor and a mentor representing their employer develops a professional credential induction plan.

# 501B Induction Planning and Assessment of Competence (2)

Prerequisite: consent of Department Chair. This is a collaborative assessment (the student, university instructor, and mentor) of each credential candidate's competence in each of five thematic areas defined by the Commission on Teaching Credentialing.

#### 503 Organizational Leadership (3)

Prerequisite: admission to Preliminary Credential and/or master's program. The focus of this class is on using organizational theory and leadership studies to understand schools and how to bring about change in schools. The course includes study of the organization, structure, and cultural context of schools and the study of techniques used to guide, motivate, delegate, build consensus, and lead others in the achievement of goals.

# 505 Curriculum, Instruction and Assessment (3)

Study of alternative designs for school curriculum, delivery and evaluation of instructional programs, current trends in supervision and assessment of student progress. Exploration of the works of major educational theorists and reviews of research. Study of the dynamics of curriculum change.

#### 510 Introduction to Educational Research (2)

Prerequisite: admission to Preliminary Credential and/or master's program.
Introduces students to the major forms of both quantitative and qualitative research used in education. Students will learn how to select an appropriate research method and the characteristics of sound research. Stress will be placed on making reasoned judgments as consumers of research as well as selecting appropriate information collection strategies as school leaders.

#### 511 Leadership of Instruction (3)

Prerequisites: admission to Professional Credential program. Ed Admin 501A as corequisite or prerequisite. Deals with the context within which schooling takes place, recognizing and responding in positive ways to the cultural diversities in California communities. Develops understanding of the complex relationships between public policy and instruction, and how to excercise leadership initializing, developing, implementing, and evaluating policies and managing changes designed to foster educational goals and success for all students. Examines systematic use of learning assessment and teacher and program evaluation. Explores the ethical and moral dimensions of schooling.

#### 523 Administrative Leadership (3)

Prerequisites: Ed Admin 501A. Expands understanding of how to exercise leadership to build and maintain a positive organizational culture. Explores ways to assess needs and garner and use appropriate resources to achieve student and school success. Focuses especially on issues of how to use administrative structures to make maximum use of human and fiscal resources. Also addresses the need to act in accordance with relevant laws, regulations, and policies.

#### 531 Staff Development (1)

Prerequisites: Ed Admin 501A. Models and specific strategies for working with others in planning staff development to enhance learning and performance of adult learners (staff).

#### 561 Policy, Governance, Community Relations (3)

Prerequisite: Ed Admin 503. In this course students study the factors which determine public policy with regard to education, the roles of the various levels of government in controlling public education, how to identify various interest group, and how to communicate effectively about school programs.

#### 563 Human Resource Administration (2)

Prerequisite: Ed Admin 503. This course focuses on the importance and dimensions of human resource administration and the need to attract, retain, develop, and motivate school personnel in ways that enhance learning and professional development and that lead to positive and productive school settings. Includes study of collective bargaining and employee evaluation in public schools.

#### 564 School Law and Regulatory Process (3)

Prerequisite: Ed Admin 503. This course reviews the federal, state and local educational laws, regulations and other policies that govern schools and the requirements that administrators act in accordance with these laws and regulations in ways that are ethically and legally defensible.

#### 565 School Finance (3)

Prerequisite: Ed Admin 503. Course reviews effective management of fiscal resources and business services. The course covers the sources of income to public schools: federal, state, local, and private (including grants and foundations). It also reviews sound budgetary and business procedures for schools.

#### 566 Leadership in Elementary Schools (3)

Prerequisite: Ed Admin 503. The course focuses on the leadership roles of principals co-administrators, and supervisors in elementary schools. Content includes leadership, reflective practice, human relations, the administrator's role in group process, site based decision-making, school climate chan agent roles, and planning models. Violence and school safety issues such as gangs will be studied.

#### 567 A.B.C.D Fieldwork (1.1.1.1)

Prerequisite: admission to credential and/or master's program; and 567A is a prerequisite for 567B, 567B is a prerequisite to 567C, and 567C is a prerequisite to 567D. Directed fieldwork in administrative areas in school.

#### 586 Leadership in Secondary Schools (3

Prerequisite: Ed Admin 503. The course focuses on the leadership roles of principals co-administrators, and supervisors in secondary schools. Content includes leadership reflective practice, human relations, the administrator's role in group process, site based decision-making, school climate chan agent roles, and planning models. Violence and school safety issues such as gangs will be studied.

#### 593 Meeting the Needs of Diverse Populations (2)

Prerequisite: Ed Admin 503. The course examines effective administrative practices and leadership in working with teachers and students of differing gender or ethnicity or with disabilities so as to promote equal learning opportunities. The course includes study of diverse cultural patterns among families and appropriate mechanisms for involving a families in school programs.

#### 597 Project (1,1)

Prerequisites: Ed Admin 510. Individual research on a graduate project, with conferences with a faculty advisor, culminating in a project. Should be taken for 1 unit each time, total of 2 units required.

#### 599 Independent Graduate Research (1-3)

Prerequisite: consent of instructor.

Independent inquiry for qualified students.

# electrical engine

#### **DEPARTMENT HEAD**

David Cheng

#### **DEPARTMENT OFFICE**

Engineering 100A

#### **PROGRAMS OFFERED**

Bachelor of Science in Electrical Engineering

Master of Science in Electrical Engineering

Option in Systems Engineering

#### **FACULTY**

Magsood Ahmed Chaudhry, David Cheng, John Clymer, George Cohn, Shahin Ghazanshahi, Mohinder Grewal, Karim Hamidian, Hassan Hamidi-Hashemi, Young Kwon, Chennareddy Reddy, Mostafa Shiva, Fleur Tehrani, Jesus Tuazon

#### **ADVISERS**

Undergraduate program adviser;

David Cheng

Graduate program coordinator;

Jesus Tuazon

Graduate admissions;

David Cheng

All department full-time faculty serve as advisers; see electrical engineering bulletin board for names, office hours and room numbers

#### INTRODUCTION

The Bachelor of Science degree in Electrical Engineering is accredited by the Accreditation Board for Engineering and Technology. The electrical engineering program provides the students with the basic and advanced topics in the areas of design and analysis of VLSI and electronic circuits, design and analysis of computer architecture, microprocessors, communication sytems, signal processing and control systems. This program develops an ability to apply



design and analysis knowledge to the practice of electrical engineering in an effective and professional manner. This knowledge can be applied to various engineering practices in aerospace, computer, electrical, electronics and other applied fields.

#### **BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING**

See "Departments of Engineering" for requirements in mathematics and science foundation courses (33 units), engineering core courses (24 units) and general education course work. In addition, EG-EE 203 and 303 must be completed.

#### Upper-Division Writing Requirement

In addition to the Examination in Writing Proficiency (EWP), all of the following courses are required to fulfill the upper-division English writing requirement:

EG-EE 303L Electronics Laboratory (1)

EG-ME 306A Unified Laboratory (1)

EG-EE 310L Electronic Circuits Laboratory (2)

EG-EE 385 Electrical Engineering Design Projects Laboratory (3)

OR EG-EE 307L Digital Computer Design Lab (3)

Written work for these courses must meet professional standards. All these courses must be passed with at least a C grade.

#### Required Courses in Electrical Engineering (34 units)

Enrollment in these courses is limited to students who meet the prerequisites.

EG-EE 203L Electric Circuits Lab (1)

EG-EE 245 Computer Logic & Architecture (3)

EG-EE 245L Computer Logic and Architecture Lab (2)

EG-EE 303 Electronics (3)

EG-EE 303L Electronics Lab (1)

EG-EE 309 Network Analysis (3)

EG-EE 310 Electronic Circuits (3)

EG-EE 310L Electronic Circuits Lab (2)

EG-EE 311 Field Theory and Transmission Lines (3)

EG-EE 313 Introduction to Electromechanics (3)

EG-EE 323 Engineering Probability and Statistics (3)

EG-EE 370 Seminar in Electrical Engineering (1)

EG-EE 385 Electrical Engineering Design Projects Lab (3) OR EG-EE 307L Digital Computer Design Lab (3)

EG-EE 409 Introduction to Linear Systems (3)

# Technical Electives in Electrical Engineering (11 units)

Before enrolling in any elective course, approval of the adviser must be obtained. At least 3.5 units of design content must be included. Senior project, EG-EE 497 (1-3), and Independent Study, EG-EE 499 (1-3), are elective courses; the student must complete a study application form and submit it for approval to the supervising faculty member and the department head prior to the semester in which the course work is to begin.

VLSI and Electronic Circuits

EG-EE 404 Intro to Microprocessors and Microcomputers (3)

EG-EE 404L Microprocessor Laboratory (1)

EG-EE 410 Electro-Optical Systems (3)

EG-EE 442 Electronic Circuits (3)

EG-EE 445 Digital Electronics (3)

EG-EE 448 Digital Systems Design and VHDL (3)

EG-EE 455 Solid State Electronics (3)

EG-EE 465 Introduction to VLSI Design (3)

Communication Systems and Signal Processing

EG-EE 404 Introduction to Microprocessors and Microcumputers (3)

EG-EE 410 Electro-Optical Systems (3)

EG-EE 420 Introduction to Digital Filtering (3)

EG-EE 442 Electronic Circuits (3)

EG-EE 443 Electronic Communication Systems (3)

EG-EE 448 Digital Systems Design and VHDL (3)

EG-EE 480 Engineering Optics (3)

EG-EE 483 Introduction to Global Positioning Systems (GPS) (3)

EG-EE 483L Global Positioning Systems Lab (2)

Control Systems

EG-EE 313L Power Laboratory (1)

EG-EE 404 Introduction to Microprocessors and Microcomputers (3)

EG-EE 416 Feedback Control Systems (3)

EG-EE 420 Introduction to Digital Filtering (3)

EG-EE 424 Computer Simulation of Continuous Systems (3)

EG-EE 425 Introduction to Systems Engineering (3)

EG-EE 483 Introduction to Global Positioning Systems (GPS) (3)

Note: EG-EE 203 and 303 must be passed with at least a C grade.

Computer Engineering

EG-EE 307 Digital Computer Architecture & Design I (3)

EG-EE 307L Digital Computer Design Lab (3)

EG-GN 403 Computer Methods in Numerical Analysis (3)

EG-EE 404 Introduction to Microprocessors and Microcomputers (3)

EG-EE 404L Microprocessor Lab (1)

EG-EE 405 Firmware Engineering (3)

EG-EE 412 Digital Computer Architecture and Design II (3)

EG-EE 414 Introduction to Parallel Processing (3)

EG-EE 425 Introduction to Systems Engineering (3)

EG-EE 445 Digital Electronics (3)

EG-EE 448 Digital Systems Design and VHDL (3)

EG-EE 455 Solid State Electronics (3)

EG-EE 465 Introduction to VLSI Design (3)

# MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

To qualify for admission in conditionally classified standing, applicants must meet the following University and departmental requirements:

- Bachelor's degree from a regionally accredited institution
- 2. Bachelor's degree in an engineering

- program which is accredited by the Accreditation Board for Engineering and Technology (ABET)
- Good standing at the last institution attended
- 4. Minimum GPA of 2.75 in the last 60 semester units and 3.0 in the last 15 units of electrical engineering courses attempted

Students with grade deficiencies, degrees from non-ABET accredited universities, or undergraduate majors other than Electrical Engineering may be considered for conditional admission. However, any deficiencies must be made up prior to advancing to classified standing and prior to beginning course work for the master's degree. Requirements for fulfilling deficiencies include a minimum of six units of adviser-approved course work. Deficiencies must be completed with minimum 2.5 GPA and with at least 2.75 GPA in the last nine deficiency units.

Each applicant file will be reviewed by the department graduate admissions adviser.

Upon admission, the applicant is urged to make an appointment with the graduate program coordinator. The program coordinator will assign a faculty adviser based on the student's areas of interest and career objectives.

#### Classified Standing

A student who meets the above requirements for admission to conditionally classified standing may be granted classified standing contingent upon:

- Completion of all required deficiency course work
- Fulfillment of the University writing
  requirement. Students with degrees from
  American universities must show proof of
  meeting an upper-division writing
  requirement, pass the EWP, or complete
  ENGLISH 301 or 360. Students who
  have degrees from foreign universities
  must pass the Examination in Writing
  Proficiency (EWP) or complete ENGLISH
  301 or 360 with a grade of C or better.
- Development and approval of a study plan prior to completing nine units toward the 30-unit degree requirements.

Students must meet with a faculty adviser to set up a study plan.

Classification is not granted until the study plan is approved by the faculty

adviser, the department head, and the Office of Graduate Studies. Any subsequent changes to the study plan must have prior written approval by the faculty adviser and department head.

#### Study Plan

The study plan consists of a minimum of 30 units adviser-approved upper-division and graduate level course work which must be completed with an overall grade-point average of at least 3.0. At least half the units required for the degree must be in approved graduate (500-level) courses.

#### Required Courses (6 units)

EG-GN 403 Computer Methods in Numerical Analysis (3)

Additional adviser-approved math-oriented course (3)

#### Concentration Courses (15 units)

A student is required to select a minimum of 15 units in Electrical Engineering. These units may be 400-level and 500-level courses and are selected according to the student's area of interest. Course work may focus on the following areas: Communications Systems/Signal Processing, Computer Engineering, Control Systems, Microelectronics and Circuit Theory, Electromagnetic Field Theory and Optics and Systems Engineering.

Graduate Project, EG-EE 597 (1-3), and Thesis, EG-EE 598 (6), are considered concentration courses.

#### Other Courses (9 units)

Electrical Engineering or a related engineering field and are subject to adviser's approval.

#### Exam/Thesis/Project Option

Subject to approval by the faculty adviser, students may select one of the following options for final review by the department graduate committee:

- Satisfactory completion of a final oral comprehensive examination on coursework
   OR
- Satisfactory completion of a formal project EG-EE 597 (3 units) and a final oral comprehensive examination on coursework OR
- 3. Satisfactory completion and oral defense of a thesis EG-EE 598 (6 units).

A typed draft of the thesis or project report must be submitted to the student's thesis or project committee no later than four weeks prior to the last day of the semester in which the oral defense of the thesis or project report is scheduled.

The thesis or project committee consists of a minimum of three members of the Electrical Engineering faculty. The thesis should cover original research and be prepared according to the university guidelines. Committee questions will be directed in part toward defense of the project report and in part toward an oral examination related to coursework. Guidelines for the preparation of theses and formal reports are available in the Electrical Engineering departmental office and the university Graduate Studies office.

Students requesting Graduate Project (EG-EE 597), Thesis (EG-EE 598) or Independent Study (EG-EE 599) must complete a study application form and submit it for approval to the supervising faculty member and department head prior to the semester in which the course work is to begin.

#### Advancement to Candidacy

Advancement to candidacy requires that the student file a graduation check prior to the beginning of the final semester (see class schedule for deadlines). Completion of requirements for the degree include a minimum GPA of 3.0 on all study plan course work, successful completion of a comprehensive examination or oral defense of a thesis or project, and recommendation by the Electrical Engineering faculty and office of Graduate Studies.

#### **OPTION IN SYSTEMS ENGINEERING**

Students seeking this option must meet the same requirements as the Option in Electrical Engineering. In addition students selecting the systems engineering option will be required to include the following six courses in their study plans:

EG-EE 580 Analysis of Random Signals (3)

EG-EE 581 Theory of Linear Systems (3)

EG-EE 582 Linear Estimation Theory (3)

EG-EE 585 Optimization Techniques in Systems Engineering (3)

EG-EE 587 Operational Analysis Techniques in Systems Engineering (3)

EG-EE 588 Systems Engineering Process and Its Management (3)

The remainder of the systems engineering study plan will include other engineering courses with an emphasis in a particular field such as information systems, control theory, computer systems, civil or mechanical engineering applications. Students possessing a Bachelor of Science in Engineering may elect to include up to nine units from approved subjects offered by the School of Business Administration and Economics as a part of their study plan.

#### **ELECTRICAL ENGINEERING COURSES**

#### 203 Electric Circuits (3)

Prerequisites: Physics 226; Math 250A; Prerequisite or corequisite: EG-GN 205. Units; Ohm's and Kirchhoff's laws; mesh and nodal analysis, superposition; Thevenin and Norton theorems; RL and RC transients; phasors and steady state sinusoidal analysis; response as a function of frequency; current, voltage, and power relationships; polyphase circuits. (203=CAN ENGR 12; 203+203L=CAN ENGR 6)

#### 203L Electric Circuits Laboratory (1)

Prerequisite or corequisite: EG-EE 203. Electrical measurement techniques; verification of basic circuit laws for resistive, RL, and RC circuits. (3 hours laboratory) (203+203L=CAN ENGR 6)

# **241 Low-Level Language Systems (3)** (Same as Computer Science 241)

#### 245 Computer Logic and Architecture (3)

Prerequisite: EG-GN 205 or equivalent. Logic design and organization of the major components of computer, analysis and synthesis of combinational and sequential logics, analysis of the arithmetic, memory control and I/O units, concepts in computer control.

#### 245L Computer Logic and Architecture Lab (2)

Prerequisite or corequisite: EG-EE 245.

Digital logic circuits; decoders, counters, serial and parallel adders, control circuits (1 hour lecture, 3 hours laboratory)

#### 303 Electronics (3)

Prerequisites: Physics 227 and EG-EE 203. Corequisite: EG-EE 203L.

Characteristics and elementary applications of semiconductor diodes, field-effect transistors and bipolar-junction transistors, and operational amplifiers; mid-frequency small-signal analysis and design of transistors.

#### 303L Electronics Laboratory (1)

Prerequisite: EG-EE 203L, 323 and English 101. Corequisite: EG-EE 303. Experimental study of semiconductor diodes, transistors, and analysis and design of elementary electronic circuits. (3 hours laboratory)

# 307 Digital Computer Architecture and Design I (3)

Prerequisite: EG-EE 245L. Organization and design of major components of a digital computer including arithmetic, memory, input, output and control units. Integration of units into a system and simulation by a computer design language.

#### 307L Digital Computer Design Lab (3)

Prerequisites: EG-EE 303L, 245L and 307. Design and implementation of a small digital computer; adders, arithmetic unit, control unit, memory control unit, memory unit and program unit. May be taken in lieu of EG-EE 385. (1 hour lecture, 6 hours laboratory)

#### 309 Network Analysis (3)

Prerequisites: EG-EE 203 and EG-GN 308. Prerequisite or corequisite: EG-EE 203L. Performance of RLC circuits; complex frequency and the s-plane; frequency response and resonance; network topology; two-port network characterization; classical filter theory.

#### 310 Electronic Circuits (3)

Prerequisites: EG-EE 303 and 309.
Continuation of 303, analysis and design of multistage and feedback amplifiers; frequency characteristics of amplifiers, frequency characteristics and stability of feedback amplifiers, differential amplifiers, design of IC circuit biasing, operational amplifiers and their applications.

#### 310L Electronic Circuits Lab (2)

Prerequisite: EG-EE 303L. Prerequisite or corequisite: EG-EE 310. Single, multistage and feedback amplifiers; linear and digital integrated circuits, ADC and DAC design project. (3 hours laboratory, 1 hour lecture)

#### 311 Field Theory and Transmission Lines (3)

Prerequisites: EG-EE 203, Physics 226 and Math 250B. Electrostatics and magnetostatics; boundary value problems; magnetic materials and the magnetic circuit; magnetic induction; Maxwell's equations and the formulation of circuit concepts; transmission lines.

#### 313 Introduction to Electromechanics (3)

Prerequisites: EG-EE 309 and 311.
Electromagnetic fields and circuits; transformers, saturation effects. Simple electromechanical systems. Circuit models, terminal characteristics and applications of DC and AC machines.

#### 313L Power Laboratory (1)

Prerequisite: EG-EE 303L. Prerequisite or corequisite: EG-EE 313. Experiments in electromagnetic fields and circuits, transformers, and electromechanical systems such as AC and DC machines (3 hours laboratory)

# 323 Engineering Probability and Statistics (3)

Prerequisite: Math 250A. Set theory: axiomatic foundation of probability; random variables; probability distribution and density functions; joint, conditional, and marginal distributions; expected values; distribution of functions of random variables; central limit theorem; estimation.

#### 370 Seminar in Electrical Engineering (1)

Prerequisite: senior standing in engineering. The engineering profession, professional ethics, and related topics.

#### 385 Electrical Engineering Design Projects Laboratory (3)

Prerequisite: EG-EE 310L. Learn the practical aspects of design and project construction. Select an instructor approved design project in electrical engineering. Use CAD program for schematic capture and simulation. Construct the final hardware according to the design specification. Complete a performance evaluation and demonstrate the final product. (1 hour lecture, 6 hours laboratory)

# 404 Introduction to Microprocessors and Microcomputers (3)

Prerequisite: EG-EE 245L. Hardware and software concepts in microprocessors, processor family chips, system architecture, CPU, input/output devices, interrupts and DMA, memory (ROM, RAM), electrical and timing characteristics, assembly language programming.

#### 404L Microprocessor Laboratory (1)

Prerequisite: EG-EE 245L. Prerequisite or corequisite: EG-EE 404. I/O interfacing with a microprocessor system; familiarization with the operating system, assembler, debugger and emulator; design of keyboard, LCO display, RS 232, D/A converter, A/D converter and floppy disk interfaces. (3 hours laboratory)

#### 405 Firmware Engineering (3)

Prerequisite: EG-EE 245 and 245L. Firmware approach to digital systems design using programmable devices as PLD, CPLD and FPGA and programmable memories as PROM, UVERPROM, EEPROM and Flash memory. Digital system applications on diskless systems, timers, communication protocols and small system interpreter.

#### 409 Introduction to Linear Systems (3)

Prerequisite: EG-EE 309. Development of time and frequency domain models for physical systems. The linearization process and representation with block diagrams and signal flow graphs; discrete-time systems and digital signals including use of Z-transforms; stability theory of continuous and discrete time systems.

#### 410 Electro-Optical Systems (3)

Prerequisite: EG-EE 311. Introduction to electro-optics; optical radiation characteristics and sources; geometrical and physical optics; lasers and electro-optical modulation; quantum and thermal optical radiation detectors; detector performance analysis; electro-optical systems modeling and analysis; application examples.

# 412 Digital Computer Architecture and Design II (3)

Prerequisite: EG-EE 307. Modern architectures of computer systems, their CPU structure, memory hierarchies and I/O processors; conventional and microprogrammed control; high-speed and pipelined ALU; cache, virtual and interleaved memories, DMA, interrupts and priority.

#### 414 Introduction to Parallel Processing (3)

Prerequisite: EG-EE 307. Parallel processing concepts; architectures and interconnection networks for parallel processing; memory organization, input/output considerations, and hardware issues in parallel processing; parallel processing system design and applications; comparison of representative parallel processing systems.

#### 416 Feedback Control Systems (3)

Prerequisite: EG-EE 409. Feedback control system characteristics; stability in the frequency domain; analysis and design of continuous-time systems using root-locus, Bode and Nyquist plots and Nichols chart.

#### 420 Introduction to Digital Filtering (3)

Prerequisite: EG-EE 409. Discrete-time signals and systems; solution of difference equations; Fourier transform for a sequence; Z-transform; discrete Fourier transform; FIR and IIR realizations; design of digital filters.

# 424 Computer Simulation of Continuous Systems (3)

Prerequisites: EG-GN 205 and 308. Use of the digital computer for simulation of physical systems modeled by ordinary differential equations; problem formulation, indepth analysis of two integration methods, and the use of a general purpose system simulation program such as CSSL.

# 425 Introduction to Systems Engineering (3)

Prerequisites: EG-EE 245, EG-EE 323 or Computer Science 240 and Math 338 for Computer Science majors. Introduction to systems engineering analysis and the systems approach; introduction to modeling, optimization, design and control; systems requirements analysis; analytical and computational solution methods; information processing; integrated systems.

#### 430 Fuzzy Logic and Control (3)

Prerequisite: EG-EE 409. Fuzzy logic and systems; comparison of classical sets, relations, and operators with fuzzy sets, relations and operators; fuzzy arithmetic and transformations; classical predicate logic and reasoning versus fuzzy logic and approximate reasoning. Applications to rule-based systems and control systems.

#### 442 Electronic Circuits (3)

Prerequisite: EG-EE 310. Power amplifiers and tuned amplifiers; RF amplifiers; modulation and detection circuits; oscillators; and operational amplifier applications.

#### 443 Electronic Communication Systems (3)

Prerequisites: EG-EE 310 and 323 or equivalent. Principles of amplitude, angular and pulse modulation, representative communication systems, the effects of noise on system performance.

#### 445 Digital Electronics (3)

Prerequisites: EG-EE 303 and 245. RC circuits, attenuators, compensation and scope probe. Logic circuits: DTL, TTL, STTL, LSTTL and ECL. Fanout, noise-immunity, switching speed, power consumption, input-output characteristics. Design and analysis of MOS logic circuits; PMOS, NMOS and CMOS gates, flip-flops, shift registers and memory circuits.

#### 448 Digital Systems Design and VHDL (3)

Prerequisites: EG-EE 303 and 245. Basic concepts and characteristics of digital systems, traditional logic design, LSI/VLSI logic design, combinational and sequential logic, and their applications; timing and control, race conditions and noise, microcomputers, computer-aided programming, development systems, microcomputer system hardware design, input/output devices.

#### 455 Solid State Electronics (3)

Prerequisites: EG-EE 303 and 311. Quantum mechanical principles, atomic structure, crystal structure, crystal defect and diffusion, lattice vibration and phonons, energy band theory, charge transport phenomena, free electron theory of metal, intrinsic and extrinsic semiconductors, p-n junction theory, transistor theory.

#### 465 Introduction to VLSI Design (3)

Prerequisites: EG-EE 245 and 303.

Computer aided design of VLSI circuits. MOS device structure, design rules, layout examples, CMOS standard cells. Speed power trade off, scaling, device and circuit simulation. VLSI design software tools. Routing method system design, Design Project. Chip fabrication through MOSIS service, testing.

#### 480 Engineering Optics (3)

Prerequisite: EG-EE 311 or Physics 227. Engineering aspects of the optics of planar interfaces; geometrical optics of devices; interference of beams at parallel interfaces; linear system transforms; diffraction, polarization, coherence; practical optical elements; laboratory demonstrations and significant coverage of engineering applications.

# 483 Introduction to Global Positioning Systems (GPS) (3)

Prerequisites: EG-EE 409, 232, 308. Description of Global Positioning System (GPS) and Differential Global Positioning Systems (DGPS), GPS navigation, errors. Satellite signals and co-ordinate transform math. Modeling for position and velocity. Application to navigation.

#### 497 Senior Project (1-3)

Prerequisite: consent of adviser and instructor. Directed independent design project.

#### 499 Independent Study (1-3)

Prerequisite: approval of study plan by adviser. Specialized topics in engineering selected in consultation with and completed under the supervision of the instructor. May be repeated for credit.

#### 503 Information Theory and Coding (3)

Prerequisite: EG-EE 323. Information measures, probabilistic studies of the transmission and encoding of information, Shannon's fundamental theorems, coding for noisy channels.

#### 504A Linear Network Synthesis (3)

Prerequisite: EG-EE 310. Synthesis of passive element driving-point and transfer-functions with emphasis on RC networks. Basic operational amplifier RC circuits and their performance limitations, introduction to second-order RC active filters. Parameter sensitivity analysis.

#### 507 Detection Theory (3)

Prerequisite: EG-EE 580. Formulation of decision rules for the detection of signals in a noisy environment, optimum receivers.

Estimation of parameters of detected signals.

Estimation theory.

# 510 Optics & Electromagnetics in Communications (3)

Prerequisite: EG-EE 480. Plane-wave propagation and reflection from multiple layers; two- and three-dimensional boundary value problems; waveguides and resonant cavities; radiation from apertures and antennas; electromagnetic properties of materials, gases, and plasmas; significant coverage of engineering applications.

#### 518 Digital Signal Processing I (3)

Prerequisite: EG-EE 420. Discrete Fourier transform; fast Fourier transform; Chirp Z-transform; discrete time random signals; floating-point arithmetic; quantization; finite word length effect in digital filters; spectral analysis and power spectrum estimation.

# 519A Hypercube Multiprocessing and Applications (3)

Prerequisite: EG-EE 412. The system architecture and application of hypercubes; the node processor, floating point accelerator, communication circuits, synchronization, routing and message-passing algorithms, process decomposition and load balancing, a hands-on parallel programming experience on Hypercube Parallel Processing System.

#### 519B Multiprocessing and Computer Networks (3)

Prerequisite: EG-EE 519A. Advanced topics in computer architecture design to increase computing through-put and efficiency through multiprocessing, distributed processing, array and pipeline processors, and computer networks.

#### 521 Digital Image Processing (3)

Prerequisite: EG-EE 409 or Computer Science 435 or equivalent. Digital Image Fundamentals, Image Transforms, Image Enhancement, Spatial and Frequency Domain Methods, Histograms, Image Smoothing, Image Encoding Principles, and Fundamentals of Image Segmentation, Representation and Description.

#### 522 Spread Spectrum Communications (3)

Prerequisites: EG-EE 443 and 580. Introduction to Spread Spectrum (SS) Systems. Performance analysis of coherent digital signaling schemes. Synchronization. Direct sequence, frequency hopping, time hopping, and Hybrid Spread Spectrum Modulations. Binary shift register sequences. Code tracking loops. Performance of SS systems in a jamming environment, with forward error correction.

#### 523A VLSI Technology and Integrated Circuits (3)

Prerequisite: EG-EE 465 or equivalent. Solid-state physics of silicon crystal, oxide and interface physics. Wafer fabrication technologies: oxidation, diffusion, ion implantation, epilaxy, thin film process, photolithography, layout design principles for integrated circuits. Bipolar technology and design rules.

#### 523B Very Large-Scale Integrated Circuits (3)

Prerequisites: EG-EE 465 or equivalent and EG-EE 445. Design and analysis of VLSI circuits. MOS device physics. Short channel effect, LDD device. PMOS, NMOS, and CMOS circuits. Fabrication process and design rules. Latch-up problem. CMOS static and dynamic circuit. CAD design.

#### 526 Digital Control Systems (3)

Prerequisite: EG-EE 416. Analysis, design and implementation of digital control systems; Z-transform methods; frequency domain and state-space approach for discrete-time systems.

#### 527 Fault Diagnosis and Fault-Tolerant Design (3)

Prerequisite: EG-EE 307. Fault diagnosis and fault-tolerant design of digital systems; fault diagnosis test for combinational and sequential circuits, reliability calculations, multiple hardware redundancy, error detection and correcting codes, software redundancy and fault-tolerant computing.

#### 529 Principles of Neural Systems (3)

Prerequisites: EG-EE 310 and 409.

Principles of neural systems and their hardware implementation. Basic properties, discrete and continuous bildirectional associative memories. Temporal associative memories. Neural nets classifiers, perceptrons, supervised and unsupervised learning. Forward and backward propagation. Electrical models of neural networks using op-amp., analog VLSI.

#### 531 Phase-Locked and Frequency Feedback Systems (3)

Prerequisite: EG-EE 580 or consent of instructor. Theory of noise and linear systems, FM feedback principles. Theory and design of phase-locked loops and their applications in communication and control.

#### 537 Satellite Communications (3)

Prerequisite: EG-EE 443. Satellite lsystems, link analysis, propagantion effects, SNR/CNR calculations, modulation schemes, TDMA, FDMA, CDMA techniques.

#### 557 Microprogramming and Emulation (3)

Prerequisite: EG-EE 307. An introduction to microprogramming concepts and applications to the control unit of a computer, digital control systems, interpretations, translation and emulations.

# 558A Microprocessors and System Applications I (3)

Prerequisites: EG-EE 404 and 404L.

Microprocessors and microcomputers, their related software systems, system design with microprocessors, applicants in peripheral controllers, communication devices and multiprocessing systems.

#### 558B Microprocessors and Systems Applications II (3)

Prerequisite: EG-EE 558A. Advanced microprocessor architecture and their applications to microcomputer networking; RISC VS CISC architectures, communication protocol, distributed-operating system, and local area networks.

#### 559 Introduction to Robotics (3)

Prerequisite: EG-EE 416 or consent of instructor. The science of robotics from an electrical engineering standpoint, including modeling, task planning, control, sensing and robot intelligence.

#### 580 Analysis of Random Signals (3)

Prerequisites: EG-EE 409 and 323 or equivalent. Random processes pertinent to communications, controls and other physical applications, Markov sequences and processes, the orthogonality principle.

#### 581 Theory of Linear Systems (3)

Prerequisites: EG-GN 403 and EG-EE 416. State space analysis, linear spaces, stability of systems; numerical methods of linear systems analysis and design.

#### 582 Linear Estimation Theory (3)

Prerequisites: EG-EE 580 and 581.

Mathematical models of continuous-time and discrete-time stochastic processes; the Kalman filter, smoothing and suboptimal filtering computational studies.

#### 585 Optimization Techniques in Systems Engineering (3)

Prerequisite: EG-GN 403 or Math 340 for Computer Science majors. Calculus of variations, optimization of functions of several variables, Lagrange multipliers, gradient techniques, linear programming, and the simplex method, nonlinear and dynamic programming.

# 587 Operational Analysis Techniques in Systems Engineering (3)

Prerequisites: EG-EE 323 or Math 338 for Computer Science majors. Operational research models; applications of probability theory to reliability, quality control, waiting line theory, Markov chains; Monte Carlo methods.

#### 597 Project (1-3)

Prerequisite: consent of adviser. Classified graduate students only.

#### 598 Thesis (1-6)

Prerequisite: consent of adviser. Classified graduate students only.

#### 599 Independent Graduate Research (1-3)

Prerequisite: consent of adviser. May be repeated for credit.

# FACULTY Carol Barnes, Ashley Bishop, JoAnn Carter-Wells, Amy Cox-Petersen, Mildred Donoghue, S. Ana Garza, Andrea Guillaume, Norma Inabinette, Karen Ivers, Patricia Keig, Norma Molina,

# AWARDS IN EDUCATION

Outstanding
Graduate Student
Emma H. Holmes
Mathematics
Award
Bernard Kravitz
Multicultural
Project Award
Outstanding
Curriculum
Project
Edwin Carr



#### PROFESSIONAL DEVELOPMENT SITES

Fellowship

The Department of Elementary, Bilingual, and Reading Education, in conjunction with the Placentia-Yorba Linda Unified, Fullerton, La Habra City, Centralia, Orange and Magnolia school districts, has identified eight elementary schools as Professional Development Sites. Blocks of credential students work exclusively at these sites. Students in these blocks are expected to engage in extensive field-based activities which are correlated with university course work and are given the opportunity to observe demonstration lessons and participate in late summer staff inservices as well as ongoing staff development activities.

Kimberly Norman, Nawang Phuntsog, Tom Savage, Evelyn Weisman, Hallie Yopp Slowik, Ivy

Yee-Sakamoto, Ruth Yopp-Edwards, Beverly Young, Carmen Zuniga-Dunlap

Fullerton:

Golden Hill (Ms. Susan Fendell, Principal) Raymond (Ms. Carolee Michael, Principal) Woodcrest

La Habra City:

Ladera Palma (Ms. Judy Wolfe, Principal)
Sierra Vista (Mr. Rick Snyder, Principal)

Orange Unified:

Canyon Rim (Ms. Margaret Van Eok, Principal)

Placentia -Yorba Linda Unified: Tynes (Ms. Paula Emry-Burtt, Principal) Bryant Ranch (Ms. Janet Morey, Principal)

Mabel Paine (Mr. Brain McKernan, Principal)

Centralia

George Miller (Dr. Barbara Sanchez, Principal)

#### **DIVISION OF EDUCATION**

#### **DIVISION CHAIR:**

Vacant

#### **DEPARTMENT HEAD:**

Tom Savage

#### **DEPARTMENT OFFICE:**

Education Classroom Building 379

#### **PROGRAMS OFFERED**

Master of Science in Education

Concentrations:

Bilingual/Bicultural (Spanish-English)

Elementary Curriculum and Instruction

Reading

Basic Teacher Credential Programs

Multiple Subject Credential

Multiple Subject Bilingual Cross
Cultural Language and Academic
Development Credential (BCLAD)

Multiple Subject Cross Cultural and Academic Development Credential (CLAD)

# MULTIPLE SUBJECT (ELEMENTARY) CREDENTIAL PROGRAM

Teacher education programs at CSUF are a two-semester professional preparation sequence, a three-semester internship sequence, and a three-semester part-time sequence. Each program is taken during the fourth and/or fifth year of study at the University, and each leads to a Multiple Subject Credential which enables individuals to teach in elementary school classes or in higher grades which have multiple subjects programs. The programs are designed to prepare teachers to teach in contemporary classrooms.

California law requires an academic major; a major in education is not permitted by law. Students devote their first three or four years of work to completing requirements for the baccalaureate degree with an academic major and, possibly, requirements for the Multiple Subject Matter Preparation Program (discussed later). Students should carefully select their academic major. Majors in the social sciences, humanities, or natural sciences provide excellent background for careers in elementary school teaching. Persons interested in working as bilingual teachers by earning a Bilingual Cross Cultural Language and Academic Development (BCLAD) Multiple Subject Credential with a Bilingual Emphasis can consider majoring in a foreign language.

#### Two-Semester Professional Preparation Program Sequence

The Multiple Subject Professional Preparation Program is a two-semester sequence as follows:

#### First Semester

- Ed Elm 430A Foundations in Elementary School Teaching (3)
- Ed Elm 430B Curriculum and Instruction in Elementary School Teaching (Math, Science, Social Studies) (1)
- Ed Elm 430C Supervised Fieldwork in Elementary Teacher Education (2)
- Ed Elm 431 Curriculum and Instruction for Diverse Populations in Elementary Schools: Part 1 (1)

(Required for CLAD and BCLAD Credential Programs. Recommended for all students in Multiple Subject Credential Program.)

- Ed Elm 433 Language Arts and Reading Instruction in the Public Schools (3)
- Ed Elm 439A Student Teaching in the Elementary School (5)
- Ed Elm 439B Seminar in Elementary Student Teaching (1)

#### Second Semester

- Ed Elm 429 Integrated Curriculum and Instruction in the Elementary School (1-3)
- Ed Elm 430B Curriculum and Instruction in Elementary School Teaching (Math, Science, Social Studies) (2)
- Ed Elm 432 Curriculum and Instruction for Diverse Populations in Elementary Schools: Part 2 (2)

(Required for CLAD and BCLAD Credential Programs. Recommended for all students in Multiple Subject Credential Program.)

- Ed Elm 439A Student Teaching in the Elementary School (2)
- Ed Elm 439B Seminar in Elementary Student Teaching (2)

# Three-Semester Profession Preparation Program Sequence

A three-semester part-time program is also available. This sequence is designed for individuals who must take classes during evenings and Saturdays.

#### First Semester

- Ed Elm 430A Foundations in Elementary School Teaching (3)
- Ed Elm 430B Curriculum and Instruction in Elementary School Teaching (Math, Science, Social Studies) (1)
- Ed Elm 430C Supervised Fieldwork in Elementary Teacher Education (2)
- Ed Elm 431 Curriculum and Instruction for Diverse Populations in Elementary Schools: Part 1 (1)

(Required for CLAD and BCLAD Credential Programs. Recommended for

- all students in Multiple Subject Credential Program.)
- Ed Elm 433 Language Arts and Reading Instruction in the Public Schools (3)
- Ed Elm 439A Student Teaching in the Elementary School (5)
- Ed Elm 439B Seminar in Elementary Student Teaching (1)

Second Semester

- Ed Elm 429 Integrated Curriculum and Instruction in the Elementary School (1-3)
- Ed Elm 430B Curriculum and Instruction in Elementary School Teaching (Math, Science, Social Studies) (2)
- Ed Elm 432 Curriculum and Instruction for Diverse Populations in Elementary Schools: Part 2 (2)
  - (Required for CLAD and BCLAD Credential Programs. Recommended for all students in Multiple Subject Credential Program.)
- Ed Elm 439A Student Teaching in the Elementary School (2)
- Ed Elm 439B Seminar in Elementary Student Teaching (2)

#### Third Semester

- Ed Elm 439A Student Teaching in an Elementary School (15)
- Ed Elm 439B Seminar in Elementary Student Teaching (3)

In addition, students interested in a Cross Cultural Language and Academic Development Credential (CLAD) should seek advisement in Education Classroom Building, Room 207.

#### Three-Semester Internship Program

The Three-Semester Intern Credential Program for Multiple Subject and Multiple Subject BCLAD Program are three-semester programs to which candidates may apply while completing the first semester of the regular credential preparation program. Admission is contingent on approved employment with a participating district, superior standing in first semester coursework and student teaching, and recommendations from University and district personnel. The remaining two semesters involve paid teaching internship positions and University coursework. Information about these programs is available in the Credential Preparation Center, Education Classroom Building, Room 207.

Both the two-semester and three-semester programs entail a commitment from 7:30 a.m. to 4 p.m. Monday through Friday, plus additional time for preparation. The three semester program also requires a class commitment from 4 p.m. to 7 p.m. Monday through Friday.

#### Admission Procedures and Criteria

Admission to the university does not include admission to the Multiple Subject Professional Preparation Program. Students must apply for admission to the Multiple Subject Credential Program the semester prior to anticipated enrollment in the program. Filing deadlines are February 28 (to begin the program the following fall) and September 30 (to begin the program the following spring).

Applications for admission into the Multiple Subject Credential Professional Preparation Program are evaluated according to criteria (scholarship, breadth of understanding, professional aptitude, physical and mental fitness, fundamental skills, and personality and character). Evidence in relation to criteria is submitted at time of application and include the following:

- Overall grade-point average in upper-half of those students in candidate's discipline.
- 2. Passage of the Multiple Subject
  Assessment for Teachers (MSAT) of the
  National Teacher Examination or completion of the Multiple Subject Matter
  Preparation (formerly Waiver) Program
  which, when completed, enables a
  student to apply for waiver of the examination. Information regarding the
  Multiple Subject Matter Preparation
  Program is available from the Credential
  Preparation Center in the Education
  Classroom Building, Room 207.
- 3. Completion of the California Basic Education Skills Test (CBEST).
- Satisfactory completion of prerequisite courses:
  - a. Child Dev 325 Middle Childhood (3 units), and
  - b. Ed Elm 315A (2 units) and Ed Elm 315B (1 unit) Introduction to Elementary Classroom Teaching: Lecture and Fieldwork
  - Ed Elm 425 (3 units) Cultural
     Pluralism in Elementary Schools.

     Required for applicants to the CLAD
     and BCLAD Programs and recommended for all applicants.
  - d. Foreign Language course work (two semesters or equivalent) required for applicants to CLAD and BCLAD Programs.

- Recommendations from academic faculty, school personnel, and/or other appropriate persons; and
- 6. Autobiography.

Further evidence is provided subsequent to application when opportunity is provided for the following: interview with program faculty, spelling test, speech and hearing test, tuberculosis screening, and certificate of clearance with respect to absence of criminal record.

Details concerning admission procedures and criteria are available in the Credential Preparation Center.

Admission to the first and subsequent semesters of the program is based on continuous and satisfactory progress in the prior semester.

#### Bilingual Cross Cultural Language and Academic Development Credential (BCLAD)

A BCLAD Multiple Subject Professional Preparation Program with a bilingual-bicultural (Spanish-English) emphasis is available. Information about this program is available in the Credential Preparation Center.

#### Application for Teaching Credentials

Upon completion of a credential program (multiple subject), the credential candidate must submit an application to the Commission on Teacher Credentialing through the Cal State Fullerton credential analyst. In addition, the candidate must complete a Fifth Year Course of Study Plan and submit it to the credential analyst for approval. The credential analyst is located in the Credential Preparation Center. Additional information on the credential application process is available in the Credential Preparation Center.

#### MASTER OF SCIENCE IN EDUCATION Bilingual/Bicultural Education (Spanish-English)

The program is designed to develop qualified bilingual/bicultural instructors who can work as classroom or resource teachers and teacher trainers. It will help individuals teach others how to provide experiences in the cultural heritage of the target population and develop specific teaching techniques and methods in teaching reading and English as a second language (ESL). The program will also help individuals to interpret and implement research related to bilingual, bicultural chil-

dren. Individuals will become skilled in their abilities to diagnose learning problems for such students and to develop and implement sound educational strategies.

#### Admission to Graduate Standing: Conditionally Classified

University requirements include: a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see "Graduate Regulations" section for complete statement and procedures).

#### Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing: 1) the development of an approved study plan; 2) a basic teaching credential or equivalent experience; 3) an approved major (minimum of 24 units upper division or graduate); 4) a 2.5 grade-point average on previous academic and related work; 5) language competence (English and Spanish) as determined by satisfactory interviews or course work; 6) completion of Spanish 466. Credit will be given for previous postbaccalaureate studies when possible. Otherwise well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed. Gradepoint average deficiencies may be removed by a demonstration of competency in the graduate program.

#### Study Plan

The adviser-approved 30 units (minimum) on the study plan will include the following:

Core Course Work (9 units)

Ed Elm 500 Bilingual Multicultural Curriculum (3)

Ed Elm 511 Survey of Educational Research (3)

Ed Elm 541 Psychological and Sociological Foundations of Bilingual-Bicultural Education (3)

Required Teacher Education Course (3 units)

Ed Elm 542 Current Issues and Problems in Bilingual-Bicultural Education

Course Work Outside Bilingual-Bicultural Education (12 units)

Chicano 431 The Chicano Child (3)

Chicano 445 History of the Chicano (3)

One of the following:

For Lang Ed 443A Principles of Teaching English to Speakers of Other Languages (3)

For Lang Ed 443B Principles of Teaching English to Speakers of Other Languages (3)

One of the following:

For Lang Ed 527 Theory of Bilingual Language Acquisition (3)

For Lang Ed 595 Curriculum and Program Design for TESOL (3)

Elective (3 units)

Elective units are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

One of the following:

Ed Elm 594 Research Seminar (3)

OR Ed Elm 597 Project (3)

OR Ed Elm 598 Thesis (3)

For further information consult the graduate program adviser.

## MASTER OF SCIENCE IN EDUCATION

Elementary Curriculum and Instruction

The program is designed to help career classroom teachers upgrade their skills, become informed about new ideas in elementary teaching, and prepare for curriculum and instructional leadership in one or more of the following areas: elementary classroom teaching, computer education, meeting the needs of diverse learners, early childhood education, and staff development in public and private schools. Students may follow the study plan outlined below for the concentration in Elementary Curriculum and Instruction or they may elect to specialize in one of four emphasis areas: Computer Education, Diversity, Early Childhood Education, and Staff Development/Mentor Teacher.

#### Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see "Graduate Regulations" for complete statement and procedures).

#### Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing upon the development of an approved study

plan: a basic teaching credential or equivalent experience, and an approved major (minimum of 24 units upper division or graduate), a 2.5 grade-point average on previous academic and related work. Credit will be given for previous post-baccalaureate studies when possible. Otherwise well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed. Grade-point average deficiencies may be removed by a demonstration of competency in the graduate program.

#### Study Plan

The adviser-approved 30 units (minimum) on the study plan will include the following:

Core Course Work (9 units)

Ed Elm 511 Survey of Educational Research (3)

Ed Elm 529 Graduate Studies: Learning Theory for Classroom Use (3)

Ed Elm 536 Curriculum Theory and Development (3)

Course Work in Concentration (12 units)

One of the following:

Ed Elm 521 The Study of Teaching (3)

Ed Elm 527 Graduate Seminar in Developmental Psychology: The Human from Conception Through Eight Years (3)

Ed Elm 528 Reading/Language Arts in the Early Childhood Curriculum (3)

Ed Elm 538 Graduate Studies: Early
Childhood Education (3)

Ed Elm 539 Clinical Supervision: Analyzing Effective Teaching (3)

Ed Elm 553 Models of Teaching (3)

Three of the following:

Ed Elm 530 Graduate Studies in Elementary Education: Second Languages (3)

Ed Elm 531 Graduate Studies in Elementary Education:Integrated Language Arts (3)

Ed Elm 532 Graduate Studies in Elementary Education: Mathematics (3)

Ed Elm 533 Graduate Studies in Elementary Education: Science (3)

Ed Elm 534 Graduate Studies in Elementary Education: Social Studies (3)

Ed Elm 535 Graduate Studies in Elementary
Education: Reading in the Language Arts
Program (3)

Ed Elm 537 Graduate Studies: Current
Issues and Problems (3)

Ed Elm 571 Graduate Studies in Elementary
Education: Science Education
Practicum (3)

Electives (6 units)

Electives are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

One of the following:

Ed Elm 594 Research Seminar (3)

OR Ed Elm 597 Graduate Project (3)
OR Ed Elm 598 Thesis (3)

For further information, consult the graduate program adviser.

#### MASTER OF SCIENCE IN EDUCATION

Elementary Curriculum and Instruction Emphasis in Computer Education

This emphasis has been designed to provide elementary school teachers with a broad understanding of the applications of microcomputers in the elementary school classroom. Competencies will enable participants to become computer curriculum specialists who will guide the integration of computers into the elementary school curriculum, their uses in instruction, and their applications in instructionally-related activities.

The requirements for admission to conditionally classified and classified standing are the same as those for the M.S. in Education concentration in Elementary Curriculum and Instruction.

#### Study Plan

The study plan consists of 30 units of adviser-approved course work:

Core Course Work (9 units)

Ed Elm 511 Survey of Educational Research (3)

Ed Elm 529 Graduate Studies: Learning Theory for Classroom Use (3)

Ed Elm 536 Curriculum Theory and Development (3)

Course Work in Computer Education Emphasis (12 units)

Ed Elm 515 Problem Solving Strategies Including Logo (3)

Ed Elm 516 Integrating Elementary School Software into the Curriculum (1)

Ed Elm 517 Practicum: Elementary School Teachers and Computers (3)

Ed Elm 519 Advanced Technology in Education (3)

Two from the following:

- Ed Elm 512 Improving Elementary Students' Writing with Microcomputers (1)
- Ed Elm 513 Teaching Utilities for Elementary School Teachers (1)
- Ed Elm 514 Strategies for Using Data Base Management with Elementary Children (1)

Curriculum-Focused Course Work (6 units)

- Ed Elm 530 Graduate Studies in Elementary Education: Second Languages (3)
- Ed Elm 531 Graduate Studies in Elementary Education: Integrated Language Arts (3)
- Ed Elm 532 Graduate Studies in Elementary Education: Mathematics (3)
- Ed Elm 533 Graduate Studies in Elementary Education: Science (3)
- Ed Elm 534 Graduate Studies in Elementary Education: Social Studies (3)
- Ed Elm 535 Graduate Studies in Elementary Education: Reading in the Language Arts Program (3)
- Ed Elm 537 Graduate Studies: Current Issues and Problems (3)
- Ed Elm 571 Graduate Studies in Elementary Education: Science Education Practicum(3)

Culminating Experience (3 units)

One of the following:

Ed Elm 594 Research Seminar (3)

OR Ed Elm 597 Project (3)

OR Ed Elm 598 Thesis (3)

#### MASTER OF SCIENCE IN EDUCATION

#### Elementary Curriculum and Instruction Emphasis in Diversity

The Diversity emphasis is designed to help career classroom teachers become informed about appropriate curriculum and instruction for the changing student population in the public schools in the state of California. It will help individuals to provide educational experiences and develop curriculum appropriate to culturally diverse populations.

#### Admission to Graduate Standing: Conditionally Classified/Classified

The requirements for admission to conditionally classified and classified standing are the same as those for the M.S. in Education concentration in Elementary Curriculum and Instruction.

#### Study Plan

Core Course Work (9 units)

- Ed Elm 500 Bilingual Multicultural Curriculum (3)
- Ed Elm 511 Survey of Educational Research (3)
- Ed Elm 529 Graduate Studies: Learning Theory for Classroom Use (3)

Diversity Emphasis Course Work (9 units)

- Ed Elm 530 Graduate Studies in Elementary Education: Second Languages (3)
- Ed Elm 541 Psychological and Sociological Foundations of Bilingual-Bicultural Education (3)
- Ed Elm 542 Current Issues and Problems in Bilingual-Bicultural Education (3)

Curriculum-Focused Course Work (15 units)

Two of the following:

- Ed Elm 531 Graduate Studies in Elementary Education: Integrated Language Arts (3)
- Ed Elm 532 Graduate Studies in Elementary Education: Mathematics (3)
- Ed Elm 533 Graduate Studies in Elementary Education: Science (3)
- Ed Elm 534 Graduate Studies in Elementary Education: Social Sciences (3)
- Ed Elm 535 Graduate Studies in Elementary Education:Reading in the Language Arts Program (3)
- Ed Elm 571 Graduate Studies in Elementary Education: Science Education Practicum (3)

Elective (3 units)

Elective units are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

Ed Elm 594 Research Seminar (3)

OR Ed Elm 597 Project (3)

OR Ed Elm 598 Thesis (3)

#### MASTER OF SCIENCE IN EDUCATION

#### Elementary Curriculum and Instruction Emphasis in Early Childhood Education

This emphasis is designed to meet the greater community and professional need for quality education during the critical early years of school. The educational demand for sound planning and instruction in preschool, kindergarten, and the primary grades has increased the need for effective specialists in Early Childhood Education.

#### Admission to Graduate Standing: Conditionally Classified/Classified

The requirements for admission to conditionally classified or classified standing are the same as for the M.S. in Education concentration in Elementary Curriculum and Instruction.

#### Study Plan: Early Childhood Education

The adviser-approved 30 units (minimum) on the study plan will include the following:

Core Course Work (9 units)

- Ed Elm 511 Survey of Educational Research (3)
- Ed Elm 529 Graduate Studies: Learning Theory for Classroom Use (3)
- Ed Elm 536 Curriculum Theory and Development (3)

Course Work in Early Childhood Emphasis (9 units)

- Ed Elm 527 Graduate Seminar in

  Developmental Psychology: The Human
  from Conception through Eight Years (3)
- Ed Elm 528 Reading/Language Arts in the Early Childhood Curriculum (3)
- Ed Elm 538 Graduate Studies: Early Childhood Education (3)

Curriculum-Focused Course Work (6 units)

Two of the following:

- Ed Elm 530 Grad Studies in Elem Ed: Second Languages (3)
- Ed Elm 531 Grad Studies in Elem Ed: Integrated Language Arts (3)
- Ed Elm 532 Grad Studies in Elem Ed: Mathematics (3)
- Ed Elm 533 Grad Studies in Elem Ed: Science (3)
- Ed Elm 534 Grad Studies in Elem Ed: Social Studies (3)
- Ed Elm 535 Grad Studies in Elem Ed: Reading in the Language Arts Program (3)
- Ed Elm 537 Grad Studies: Current Issues and Problems (3)
- Ed Elm 571 Graduate Study in Elementary Education: Science Education Practicum (3)

Elective (3 units)

Elective units are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)
One of the following:

Ed Elm 594 Research Seminar (3)

OR Ed Elm 597 Project (3)
OR Ed Elm 598 Thesis (3)

For further information, consult the graduate program adviser.

# MASTER OF SCIENCE IN EDUCATION Elementary Curriculum and Instruction Emphasis in Staff Development

This program is designed to enable educators to assume leadership roles in staff development in school districts. The sequence of courses is also designed to help mentor and master teachers and potential mentor teachers to understand contemporary trends and research findings in elementary curriculum and instruction.

#### Admission to Graduate Standing: Conditionally Classified/Classified

The requirements for admission to conditionally classified or classified standing are the same as for the M.S. in Education concentration in Elementary Curriculum and Instruction.

#### Study Plan

The adviser-approved 30 units (minimum) on the study plan will include the following:

Core Course Work (9 units)

- Ed Elm 511 Survey of Educational Research (3)
- Ed Elm 529 Graduate Studies: Learning Theory for Classroom Use (3)
- Ed Elm 536 Curriculum Theory and Development (3)

Course Work in Staff Development/Mentor Teacher Emphasis (9 units)

- Ed Elm 521 The Study of Teaching (3)
- Ed Elm 539 Clinical Supervision: Analyzing Effective Teaching (3)
- Ed Elm 553 Models of Teaching (3)

Curriculum-Focused Course Work (6 units)

Two of the following:

- Ed Elm 530 Graduate Studies in Elementary Education: Second Languages (3)
- Ed Elm 531 Graduate Studies in Elementary Education: Integrated Language Arts (3)
- Ed Elm 532 Graduate Studies in Elementary Education: Mathematics (3)
- Ed Elm 533 Graduate Studies in Elementary Education: Science (3)
- Ed Elm 534 Graduate Studies in Elementary Education: Social Studies (3)

- Ed Elm 535 Graduate Studies in Elementary Education: Reading in the Language Arts Program (3)
- Ed Elm 537 Graduate Studies: Current Issues and Problems (3)
- Ed Elm 571 Graduate Study in Elementary Education: Science Education Practicum (3)

Elective (3 units)

Elective units are chosen in consultation with and approved by the graduate adviser.

Culminating Experience (3 units)

One of the following:

Ed Elm 594 Research Seminar (3)

OR Ed Elm 597 Project (3)

OR Ed Elm 598 Thesis (3)

# MASTER OF SCIENCE IN EDUCATION Reading

Please refer to section of this catalog titled "Reading Program."

# COMPUTING CERTIFICATE FOR ELEMENTARY SCHOOL TEACHERS

The purpose of this certificate program is to provide participants with a broad understanding of the applications of microcomputers in the elementary school classroom and the instructionally related tasks in the public schools. The certificate program is designed to provide the needed competencies for participants to become curriculum specialists who will guide the integration of computers into the elementary school curriculum, their uses in instruction, and their applications in instructionally related activities at the elementary school.

Required Courses (13 units)

- Ed Elm 415 Microcomputers in the Elementary School (3)
- Ed Elm 515 Problem Solving Strategies
  Including Logo (3)
- Ed Elm 516 Integrating Elementary School Software into the Curriculum (1)
- Ed Elm 517 Practicum: Elementary School

  Teachers and Computers (3)
- Ed Elm 519 Advanced Technology in Education (3)

Electives (2 units)

Selected from the following:

Ed Elm 512 Improving Elementary Students' Writing with Microcomputers (1)

- Ed Elm 513 Teaching Utilities for Elementary School Teachers (1)
- Ed Elm 514 Strategies for Using Database Management with Elementary Children (1)
- Total required units: 15 units (12 of which must be taken at California State University, Fullerton).

For further information, consult the graduate program adviser.

# ELEMENTARY AND BILINGUAL EDUCATION COURSES

#### 215 Inquiries into Elementary Teaching (1)

Overview of documents defining subject matter competence for multiple subjects (elementary) teachers. Creation of assessment portfolio to link undergraduate academic preparation to elementary school curriculum and to document competencies and/or growth plan in specified subject matter areas.

# 315A Introduction to Elementary Classroom Teaching: Lecture (2)

Prerequisite: An exploratory course required for students considering careers in elementary school teaching. Includes on campus seminars and overview of admission requirements for the Multiple Subject Credential Program. Must be taken concurrently with 315B. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

# 315B Introduction to Elementary Classroom Teaching: Fieldwork (1)

An exploratory field assignment consisting of 60 hours as a volunteer aide in a public, K-6, elementary classroom where all subject areas are taught. Requires a journal and evaluation by the classroom teacher. Must be taken concurrently with 315A. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

#### 415 Microcomputers in the Elementary Classroom (3)

Prerequisite: teaching credential or candidacy for credential. Uses of microcomputers in elementary classroom. Development of computer related instructional materials for elementary schools. Evaluation of programs/equipment suitable for elementary children. Examination of issues involved in microcomputers in elementary schools. If taken Credit/No Credit, a "B" or higher is required.

## 425 Cultural Pluralism in Elementary Schools (3)

Prerequisite: Ed Elm 315A,B or concurrent enrollment. Culture and cultural pluralism in elementary schools. Topics: Examination of one's own beliefs and values, history/traditions of cultural groups, classroom practices and materials that promote equity, strategies for learning about students, and assessment of multicultural education programs. Fieldwork required.

#### 429 Integrated Curriculum and Instruction in the Elementary School (1-3)

Prerequisite: admission to second semester of Teacher Education program. Additional study of elementary curriculum with emphasis on language arts, integrated instruction across the curriculum, and assessment of learning outcomes. May be repeated for a maximum credit of 3 units. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

# 430A Foundations in Elementary School Teaching (3)

Prerequisite: admission to Teacher Education program. A focus on the curriculum of the elementary school, instructional planning, principles of effective teaching, generic instructional strategies, classroom management, and legal issues in education. To be taken concurrently with Ed Elm 430B, C and 433. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

#### 430B Curriculum and Instruction in Elementary School Teaching (Math, Science, Social Studies) (1-2)

Prerequisite: admission to Teacher Education program. An emphasis on instructional materials, learning styles, inquiry, concept learning, problem solving, direct instruction applied to the teaching of math, science, and social studies. To be taken concurrently with Ed Elm 430A,C. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

#### 430C Supervised Fieldwork in Elementary Teacher Education (2)

Prerequisite: admission to Teacher Education program. Co-requisites: Ed Elm 430A,B and 433. Students will serve as teacher participants in an assigned elementary school classroom. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

# 431 Curriculum and Instruction for Diverse Populations in Elementary Schools I (1)

Prerequisite: candidate for or holder of basic teaching credential. Effective integration of curriculum and instruction relating to linguistic and cultural diversity in elementary school students.

# 432 Curriculum and Instruction for Diverse Populations in Elementary Schools II (2)

(Prerequisites: Ed Elm 431 and candidate for or holder of basic teaching credential. Effective integration of curriculum and instruction relating to linguistic and cultural diversity in elementary school students.

# 433 Language Arts and Reading Instruction in the Public Schools (3)

Prerequisite: admission to Teacher
Education Program. An overview of principles of reading instruction, elements of the language arts program including literature-based reading, content area reading, the role of phonics, emergent literacy, and diagnosis of reading problems. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

#### 439A Student Teaching in the Elementary School (4-12)

Prerequisites: Ed Elm 430A,B,C, 433 and admission to student teaching. Corequisite: Ed Elm 439B. Participation in a regular elementary school teaching program for the full school day. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

#### 439B Seminar in Elementary Student Teaching (1-3)

Prerequisites: Ed Elm 430A,B,C, 433 and admission to student teaching. Corequisite: Ed Elm 439A. Seminar in problems and procedures of elementary school teaching. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

# 439C Intern Teaching in the Elementary School (3)

Prerequisites: Ed Elm 430A,B,C, 433, and completion of the first two semesters of intern teaching program. Admission only with consent of instructor. Participation in a regular elementary school teaching program for the full school day, as an intern teacher. Must be taken credit/no credit. A "B" or better is required to receive a grade of credit.

#### 492A Gender Issues in Math and Science Teaching and Learning (2)

Prerequisites: Ed Elm 315A,B and senior or graduate standing. Explores educational and cultural barriers and avenues to the success of girls in science and mathematics, development of curricula and instructional methods to address these issues.

#### 492B Gender Issues in Math and Science Education: Practicum (1)

Prerequisite: Ed Elm 315A,B. Corequisite: Ed Elm 492A. Educational and cultural barriers/avenues to girls' success in science and mathematics; implementation of curricula and instructional methods. 20 hours teaching required. If taken Credit/No Credit, a "B" or better is required for credit.

#### 499 Independent Study (1-3)

Prerequisites: senior or graduate standing, consent of instructor prior to registration. Individual investigation under supervision of a faculty member. Only students of demonstrated capability and maturity will be approved. May be repeated for credit.

#### 500 Bilingual Multicultural Curriculum (3)

Prerequisite: teaching credential or consent of instructor. Seminar: the multicultural school curriculum including forces operating on the curriculum and the participants involved in curriculum building. Modification of the curriculum to reflect multicultural contexts.

#### 511 Survey of Educational Research (3)

Descriptive statistics and statistical inferences in educational research. Representative research papers. Principles of research design. Prepare papers using research findings.

#### 512 Improving Elementary Students' Writing with Microcomputers (1)

Prerequisites: Ed Elm 415 and teaching credential or permission of instructor.

Strategies for facilitating functional and creative writing of elementary children through use of microcomputer. Emphasis on keyboarding, word processing, and writing processes of children. Evaluation of current practices and research findings.

# 513 Teaching Utilities for Elementary School Teachers (1)

Prerequisites: Ed Elm 514 and teaching credential or permission of instructor.

Strategies for improving teaching of elementary students through use of gradebook programs, word search generators, test generators, graphic programs, and instructional management software programs on microcomputers.

#### 514 Strategies for Using Database Management with Elementary Children (1)

Prerequisites: Ed Elm 415 and teaching credential or permission of instructor. Strategies for elementary school teachers to develop and use data base management with children. Fact finding, classification, inferences, and generalizations considered. Design continuum of data base competencies for children.

#### 515 Problem Solving Strategies Including Logo (3)

Prerequisites: Ed Elm 415 and teaching credential or permission of instructor.

Strategies for using logo graphics, words and lists, and other microcomputer problemsolving applications with elementary school children. Design and use of microworlds to facilitate children's development of problemsolving skills.

#### 516 Integrating Elementary School Software into the Curriculum (1)

Prerequisites: Ed Elm 415 and teaching credential or consent of instructor. Effective integration of elementary school software into the curriculum of elementary schools. Emphasis on integration into current goals of elementary school instruction. Evaluation of current computer instruction.

#### 517 Practicum: Elementary School Teachers and Computers (3)

Prerequisite: Ed Elm 516. Strategies for effectively using computers with elementary school children to improve learning; course includes field work assignments in elementary schools, and on-campus seminars.

#### 519 Advanced Technology in Education (3)

Prerequisites: Ed Elm 415 and teaching credential or permission of instructor.

Theoretical basis and strategies for improving teaching of elementary students through use of multimedia technologies. Emphasis on HyperStudio, telecommunications, videodisc technology and other digital media.

#### 521 The Study of Teaching (3)

Prerequisite: Ed Elm 511 and teaching credential or permission of instructor. A systematic study of the teaching process. Examination of the research methodology used to analyze teaching, the current knowledge of the association between teaching processes and student learning, and the implications of the research for the classroom.

#### 527 Graduate Seminar in Developmental Psychology: The Human from Conception Through Eight Years (3)

Prerequisites: teaching credential or consent of instructor. The physical, social, cognitive-intellectual, and emotional development of individuals from conception to middle childhood. Current problems, theories and research.

#### 528 Reading/Language Arts in the Early Childhood Curriculum (3)

Prerequisite: teaching credential or consent of instructor. Seminar: significant research, curriculum developments and materials, and current instructional strategies for promoting emergent literacy in children.

#### 529 Graduate Studies: Learning Theory for Classroom Use (3)

Major theoretical positions in planning and interpreting classroom practices. Educational research findings, implications for curriculum development and teaching practices.

#### 530 Graduate Studies in Elementary Education: Second Languages (3)

Prerequisites: Ed Elm 431 and 432 and teaching credential, or consent of instructor. Seminar: significant research, curriculum developments and materials, and criteria for planning and improving second language programs including those for English as a second language.

#### 531 Graduate Studies in Elementary Education: Integrated Language Arts (3)

Prerequisite: teaching credential or consent of instructor. Seminar: significant research, trends and problems in teaching the fundamental skills of communication; curriculum developments and materials, and criteria for planning and improving integrated language arts programs.

#### 532 Graduate Studies in Elementary Education: Mathematics (3)

Prerequisite: teaching credential or consent of instructor. Seminar: significant research, curricular developments and materials, criteria for planning and improving mathematics programs and instruction.

#### 533 Graduate Studies in Elementary Education: Science (3)

Prerequisite: teaching credential or consent of instructor. Seminar: research in elementary school science. The development of materials.

#### 534 Graduate Studies in Elementary Education: Social Studies (3)

Prerequisite: teaching credential or consent of instructor. Seminar: research developments and materials, criteria for planning and improving social studies programs, and current techniques of teaching.

#### 535 Graduate Studies in Elementary Education: Reading in the Language Arts Program (3)

Prerequisite: teaching credential or consent of instructor. Seminar: research developments and materials, criteria for planning and improving reading instruction in the integrated language arts programs, current instructional strategies, and the role of children's literature.

# 536 Curriculum Theory and Development (3)

Prerequisite: teaching credential or consent of instructor. Seminar: the school curriculum including the forces operating on the curriculum and the participants involved in curriculum building. The process of curriculum building.

# 537 Graduate Studies: Current Issues and Problems (3)

Prerequisite: teaching credential or consent of instructor. Problems and issues in elementary education, their causes and possible solutions.

# 538 Graduate Studies: Early Childhood Education (3)

Prerequisite: teaching credential or consent of instructor. Seminar: application of significant research in the education of young children. Current instructional strategies and criteria for planning and improving programs in early childhood education.

#### 539 Clinical Supervision: Analyzing Effective Teaching (3)

Prerequisite: teaching credential or consent of instructor. A systematic, research-based approach. Identifies basic components needed by teachers, staff developers, and administrators to improve their instructional skills. Includes principles of learning applied to supervision and applied practice in analyzing the instructional process.

#### 541 Psychological and Sociological Foundations of Bilingual-Bicultural Education (3)

Application of psychological and sociological theory and techniques to the design of programs of instruction for limited and non-English-speaking children. The use of these disciplines for the development of emotionally and socially supportive learning environments.

#### 542 Current Issues and Problems in Bilingual-Bicultural Education (3)

Problems and issues in the development and implementation of bilingual-bicultural education.

#### 553 Models of Teaching (3)

Prerequisite: teaching credential or consent of instructor. Explores varied strategies of instruction, culminating in the identification and study of sixteen unique "models." Examines relationships among theories of learning and instruction. Investigates various instructional alternatives.

#### 571 Graduate Studies in Elementary Education: Science Education Practicum (3)

Prerequisite: Elem Ed 533. Strategies for effectively teaching and assessing science content knowledge, science process skills, and scientific attitudes in the elementary school; includes field assignments in elementary schools (1 unit - 4 hours per week); seminars (2 units - 2 hours per week). Principles of effective staff development in elementary science education.

#### 594 Research Seminar (3)

Prerequisite: consent of instructor. The preparation, evaluation, development, and presentation of curriculum research proposals culminating in a graduate project. Individuals and groups will participate in critiquing proposals, curriculum projects, and research results.

#### 597 Project (1-3)

Prerequisite: consent of instructor. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

#### 598 Thesis (1-3)

Prerequisite: consent of instructor. Individual research with conferences with the instructor, culminating in a thesis.

#### 599 Independent Graduate Research (1-3)

Prerequisites: a teaching credential and one year of teaching experience. Independent inquiry.

# engineering

#### **DIVISION EDUCATIONAL OBJECTIVES**

The goals of the Division of Engineering are as follows:

- 1. To provide the best of current practice, theory, research and intellectual study in the humanities to prepare students for challenging careers in engineering, strengthen relationships to their communities and contribute ethically and productively to society;
- 2. To educate students who, actively engaged with faculty and staff, work in collaboration to

acquire and expand knowledge;

3. To provide service to the profession, the State of California, the country and to the worldwide development of engineering.

A critical focus of the education, research, and service programs within the

Division of Engineering is to afford undergraduates of varying backgrounds and abilities every opportunity for achieving success in the engineering professions.

To achieve these goals, the faculty and students of the Division of Engineering, with input from other constituents, have established the following program educational objectives:

- 1. To prepare students for successful careers and lifelong learning;
- 2. To make students thoroughly proficient in methods of analysis, including the mathematical and computational skills appropriate for engineers to use when solving problems; and
- To develop the skills pertinent to the design process, including the students' ability to formulate problems, to think creatively, to communicate effectively, to synthesize information, and to work collaboratively;
- 4. To teach students to use current experimental and data analysis techniques for engineering application; and
- 5. To instill in our students an understanding of their professional and ethical responsibilities.

#### 2 + 2 Articulated Programs with Community Colleges

The Division of Engineering has developed 2+2 years articulation agreements with community colleges to provide students seamless transfer to the CSUF engineering program of their choice. This allows the full-time student, taking the courses specified by the engineering department each semester, to graduate in two years following transfer to CSUF.

#### INTRODUCTION

The Division of Engineering is comprised of the Departments of Civil and Environmental
Engineering, Electrical Engineering, and Mechanical Engineering. Programs offered by the division
lead to the degrees of Bachelor of Science and Master of Science in the above disciplines; the three
Bachelor of Science degree programs are nationally accredited by the Engineering Accreditation

#### **DIVISION CHAIR**

Timothy W. Lancey

#### **PROGRAMS OFFERED**

Bachelor of Science in Civil Engineering Emphasis in Archtitectural Engineering

Bachelor of Science in Electrical Engineering

Bachelor of Science in Engineering Option in Engineering Science

Bachelor of Science in Mechanical Engineering Emphasis in Manufacturing Engineering

Master of Science in Civil Engineering Concentration in Environmental Engineering

Master of Science in Electrical Engineering

Option in Systems Engineering

Master of Science in Engineering
Option in Engineering Science

Master of Science in Mechanical Engineering Commission of the Accreditation Board for Engineering and Technology. Also offered are programs leading to the degrees of Bachelor of Science and Master of Science in Engineering with an Option in Engineering Science, for which the student, working with an advisor, designs an appropriate interdisciplinary program.

The undergraduate engineering programs have a broad base of science, mathematics, social sciences, humanities and engineering topics (which include engineering science and engineering design courses). Students are thus prepared to enter directly into engineering practice or to continue further education at the graduate level. The Bachelor of Science Degrees in Civil, Electrical, and Mechanical Engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

#### **High School Preparation**

The entering high school student should have a preparation which includes two years of algebra, geometry, trigonometry, and one year of physics or chemistry. Students deficient in mathematics or chemistry must take special preparatory courses, i.e., Mathematics 125 and Chemistry 115, which will not carry credit for the major. (See Mathematics Section for Entry Level Mathematics test and Math-Science Qualifying Examination requirements.)

#### Transfer Students

A transfer student shall complete a minimum of 30 units in residence of which at least 15 units shall be taken in upper-division engineering courses. Work taken at another college or university on which a grade of D was earned may not be substituted for upper-division courses.

# BACHELOR'S DEGREES IN ENGINEERING

The undergraduate curricula in engineering are comprised of four major segments. The first three segments are common to all four engineering programs, i.e. Civil Engineering, Electrical Engineering, Mechanical Engineering and the Engineering Science Option as well as the Architectural Engineering Emphasis within the Civil Engineering degree and the Manufacturing Engineering Emphasis within the Mechanical Engineering Degree.

The first segment consists of foundation courses in mathematics and the physical sciences (33 units for Electrical Engineering, 32 units for Civil Engineering, and 30 units for Mechanical Engineering). The second segment consists of 24 units of engineering core courses. The third segment contains 33 units of general education courses in the arts, humanities, social sciences, biological sciences and other related areas.

The fourth segment contains a sequence of courses in one of the four programs which includes a combination of required courses and adviser-approved technical elective courses. The number of units in this segment is not the same for each of the four engineering programs but varies from 45 to 50 units. Students must meet with their academic adviser to prepare an approved study plan of technical elective courses prior to taking such courses. Undergraduate students are required to meet with their academic adviser every semester during the first year and at least once a year thereafter. Students are strongly encouraged to see their academic advisers frequently.

All courses taken in fulfillment of the requirements for the bachelor's degrees in Engineering must be taken for a letter grade, i.e. under grade Option 1. All mathematics and physical science courses required for the degree must be completed with at least a C grade to count as prerequisite courses or as credit towards the degree. Graduate courses are not open to undergraduate students without approval of the department head.

#### Math and Science Courses

Mathematics 150A Analytic Geometry and Calculus (4)

Mathematics 150B Analytic Geometry and Calculus (4)

Mathematics 250A Intermediate Calculus (4)

Mathematics 250B Introduction to Linear Algebra and Differential Equations (4)

Chemistry 120A General Chemistry (5)

Physics 225, 225L Fundamental Physics: Mechanics and Lab (4)

Physics 226, 226L Fundamental Physics:
Electricity and Magnetism and Lab (4)

Physics 227, 227L Fundamental Physics:
Waves, Optics, and Modern Physics and
Lab (4) (required in Electrical, and
Engineering Science)
OR EITHER Chemistry 125 (3)
OR Geological Sciences 376 (3) (required in Civil Engineering)

OR a Fundamental Physics course, Physics 227 (1), (required in Mechanical Engineering)

#### **Engineering Core Courses**

All undergraduate engineering students are required to complete the following 24 units of engineering core courses regardless of the particular program selected by the student.

EG-ME 102 Graphical Communications (3)

EG-CE 201 Statics (3)

EG-EE 203 Electric Circuits (3)

EG-GN 205 Digital Computation (3)

EG-CE 302 Dynamics (3)

EG-ME 304 Thermodynamics (3)

EG-ME 306A Unified Laboratory (1)

EG-GN 308 Engineering Analysis (3)

EG-GN 314 Engineering Economy (2)

#### **General Education Courses**

- 1. Core Competencies (9 units)
  - A. Oral Communication (3 units) SPCH 100 or SPCH 102
  - B. Written Communication ENGL 101
  - C. Critical Thinking (3 units)
    ENGL 103, PHIL 200, PHIL 210,
    PSYCH 110, READ 290 or SPCOM
    235
- II. Historical and Cultural Foundations (9 units)
  - A. Development of World Civilization (3 units)

HIST 110A or HIST 110B

- B. American History, Institutions and Values
  - American History (3 units)
     AFRO 190, AMST 201, CHIC
     190, HIST 180 or HIST 190
  - 2. Government (3 units)
    POSC 100
- III Disciplinary Learning (31 units)
  - A. Mathematics and Natural Sciences (16 units)
    - 1. Mathematics
      MATH 150A
    - 2. Natural Sciences
  - a. Physical Science
    CHEM 120A, PHYS 225 and
    PHYS 225L

- b. Earth and Astronomical
   Sciences
   Not applicable for Engineering majors
- c. Life Science
  BIOL 101
- B. Arts and Humanities (9 units)
  - 1. Introduction to the Arts (3 units) ART 101, 201A, 201B, 311, 312, DANCE 101, MUSIC 100, 101, OR THTR 100
  - Introduction to Humanities
     (3 units, see General Education
     Requirements for listing of courses)
  - 3. Implications/Explorations and Participatory Experience in the Arts and Humanities (3 units, see General Education for listing, must be upper division)
- C. Social Sciences (6 units)
  - 1. Introduction to Social Sciences (3 units from EG-GN 314 and EG-CE 495 or EG-EE 370 or EG-ME 370)
  - 2. Implications/Explorations and Participatory Experience in the Social Sciences (3 units, see General Education for listing, must be upper division)
- IV. Lifelong LearningNot applicable for Engineering majors.
- V. Cultural Diversity
  One starred (\*) course from III.B.3. OR
  III.C.2. categories

Note: In order to meet the ABET accreditation requirement for depth in either Humanities or Social Sciences, at least two courses must be selected from the same department (one preferably a prerequisite to the other) for the selection of courses in sections I.C., II.B.2, III.B.2, III.B.3, or III C.2.

#### **ENGINEERING SCIENCE OPTION**

The Engineering Science Option program is an interdisciplinary program designed for those students who are interested in a broad education in the basic concepts and principles of engineering, rather than an in-depth study in one particular engineering discipline such as civil, electrical or mechanical engineering. The Option provides a flexible interdisciplinary program in engineering with ample opportunity to develop a study plan

which meets specific career goals. Courses can be selected from engineering, computer science, the physical sciences, mathematics and business to meet a special and specific engineering science objective.

Students who wish to be considered for an undergraduate or graduate engineering science program should meet with the Chair of the Division of Engineering. The Division Chair may serve as the academic adviser to the student or one or more advisers from the engineering, computer science, physical sciences, mathematics or the business faculties may be selected if appropriate.

#### Bachelor of Science in Engineering Option in Engineering Science

The degree consists of 33 units of mathematics and physical science courses, 24 units of engineering core courses, 33 units of general education courses and 45 units of adviser-approved elective courses for a total of 135 units. The adviser approved electives must include a component of engineering design courses and engineering laboratory courses.

#### MASTER OF SCIENCE IN ENGINEERING OPTION IN ENGINEERING SCIENCE

The degree consists of 30 units of adviser-approved 400- and 500-level courses. At least half the units required for the degree must be graduate (500-level) courses. A segment of the 30 units must include a math-oriented course as well as EG-GN 403 Computer Methods in Numerical Analysis.

#### INTERNSHIPS IN ENGINEERING

Internships for Engineering provide practical work experiences which integrate with and supplement the student's academic studies. Internship jobs are coordinated through the Center for Internships and Cooperative Education. In order to participate in this program a student must register for EG-GN 495 Professional Practice (1) for each semester of internship participation.

#### **GENERAL ENGINEERING COURSES**

General engineering courses are courses whose academic content is not specific for any of the engineering disciplines. The courses are not administered by any one particular department. General engineering courses are taught by faculty from all three of the engineering departments.

Although there is no degree program in

general engineering, new students who do not select a specific engineering degree will be classified as a general engineering major. The Chair of the Division of Engineering serves as the academic adviser to all general engineering students should make every effort to declare a major in one of the four engineering programs after one or two semesters of coursework. The general engineering courses are listed below.

#### 205 Digital Computation (3)

Prerequisite: college algebra or three years of high school mathematics including a second course in algebra. Computers and their numerical applications. Elementary FORTRAN programming language, digital computation methods in statistics and solving algebraic equations.

#### 308 Engineering Analysis (3)

Prerequisites: Physics 226, Math 250B or equivalent. Fundamentals and engineering applications of Fourier series, Fourier transforms, Laplace transforms, complex analysis, vector analysis; engineering applications.

#### 314 Engineering Economy (2)

Prerequisite: upper-division standing in engineering. Development, evaluation and presentation of alternatives for engineering systems and projects using principles of engineering economy and cost benefit analysis.

# 403 Computer Methods in Numerical Analysis (3)

Prerequisites: Math 250B and EG-GN 205 or equivalent. The use of numerical methods and digital computers in the solution of algebraic, transcendental, simultaneous, ordinary and partial differential equations.

#### 495 Professional Practice (1)

Prerequisite: upper-division standing in engineering. Professional engineering work in industry or government. Written report required. May be repeated for credit.

Applicable towards bachelor's degree programs. Not for credit in the graduate program.

# American literature, the various English language. Kill in writing, familiarity with and knowledge of the nature and develuit specific regard for national or linguage among different literatury masterpieces and historical

#### INTRODUCTION

The discipline of English includes the study of British and American literature, the various kinds of writing, and the history, structure and dialects of the English language.

The major in English is a flexible program emphasizing skill in writing, familiarity with and appreciation of the literatures of England and America, and knowledge of the nature and development of the English language.

Comparative literature is the study of world literature without specific regard for national or linguistic boundaries. It is comparative in that it deals with the relationships among different literatures. The comparatist studies not only the international literary masterpieces and historical

periods of world literature, but also examines critical theories from a cross-cultural perspective. The major in comparative literature promotes the understanding of world literatures and cultures in various historical periods, including the present, for students with a special concern for the relationships among the languages and literatures of various civilizations. Comparative literature courses are conducted in English, and required reading is available in English.

The study of literature and language helps students to achieve a mature understanding of themselves and the world and to learn to read critically and analytically, write clearly and persuasively, and reason soundly. For these reasons such study is ideal



preparation for professional training in fields such as law, medicine, and religion, or for responsible positions in business and industry. The major in English may be combined with preparation for elementary and secondary school teaching. In addition, the majors in English and comparative literature provide a foundation for students who intend to work for advanced degrees in preparation for college teaching.

#### ADVISERS

Undergraduate: All full-time faculty members serve as advisers.

Graduate: Susan Jacobsen

Teaching Credential: John White

An annual conference with a faculty adviser is required. New students must confer with an adviser in each of the first two semesters.

#### Credential Information

The English Department offers an approved Single Subject Matter Preparation Program in English for prospective teachers seeking the Ryan Single Subject (Secondary) Teaching

Credential. Students seeking a Multiple Subjects (Elementary) Teaching Credential may choose to

#### **DEPARTMENT CHAIR:**

Joseph Sawicki

#### VICE CHAIR:

Joanne Gass

#### **DEPARTMENT OFFICE:**

University Hall 323

#### PROGRAMS OFFERED

Bachelor of Arts in Comparative Literature

Master of Arts in Comparative Literature

Bachelor of Arts in English Minor in English

Master of Arts in English

#### FACULTY

Cornell Bonca, John Brugaletta, Mary Kay Crouch, Angela Della Volpe, Sheryl Fontaine, George Friend, Stephen Garber, Joanne Gass, Joan Greenwood, Jean Hall, Jane Hipolito, Susan Jacobsen, Joanne Jasin, Helen Jaskoski, Alan Kaye, Thomas Klammer, William Koon, Deborah Lawrence, Geraldine McNenny, Mohsen Mirshafiei, Helen Mugambi, Franz Müller-Gotama, Keith Neilson, Paul Obler, Sally Romotsky, Joseph Sawicki, Howard Seller, Yichiu Shen, Kay Stanton, Atara Stein, John White, Helen Yanko, Heping Zhao

major in English and fulfill credential requirements under the Generic Multiple Subjects Preparation Program.

All students interested in majoring in English in preparation for teaching should contact the English Education Coordinator in the English Department.

# BACHELOR OF ARTS IN COMPARATIVE LITERATURE

All students must complete a total of 42 units of upper-division courses. In selecting courses, students are urged to consult a faculty adviser.

Required courses (English 300 and 18 units in comparative literature, including Comparative Literature 324, 325, and either English/Comparative Literature 450 or Comparative Literature 451)

British and American Literature (6 upperdivision units listed under English)

Breadth Requirement (6 adviser-approved units in other fields such as anthropology, history, art history, music history or philosophy)

Electives (9 upper-division units in comparative literature, or literature courses in English or an adviser-approved foreign language)

# Reading Competence in a Foreign Language

This requirement can be met by examination or by successful completion of an adviser-approved 400-level course offered by the Department of Foreign Languages and Literatures, provided it is not taught in translation. Information on the examination is available in the Department of English and Comparative Literature office.

# MASTER OF ARTS IN COMPARATIVE LITERATURE

The master's degree program in comparative literature promotes the understanding of other literatures, peoples, and cultures in various historical periods, including the present, provides background for more advanced degrees, prepares teachers of world literature in the high schools and community colleges, and provides a liberal arts background for library studies.

#### Admission to Graduate Standing: Conditionally Classified

University requirements include a bachelor's degree from an accredited institution and a minimum GPA of 2.5 in the last 60 semester units attempted.

A writing sample will also be required of all applicants. The writing sample should demonstrate advanced skill in literary analysis and expository writing. A paper written for a course and analyzing one or more elements in one or more literary works is preferred; the submitted copy should include the instructor's name and institution, and the grade received. Applicants who do not have course papers available should contact the department graduate adviser for advice. The writing sample should be approximately five to ten pages long, and it need not include secondary research.

Applicants are strongly urged to submit their applications by November 1st for spring semester admission and by March 1st for fall semester admission.

#### Graduate Standing: Classified

#### Classified standing requires:

 An undergraduate major in comparative literature, English or foreign language with a GPA of 3.0 or better in the major courses and a GPA of 2.5 in all other college and/or university work. If the student's degree is in another field, a total of 24 units of upper-division work in comparative literature, English or foreign language with a GPA of 3.0 will be required.

If the student lacks the prerequisite number of courses, they must be taken before beginning work in the master's degree program, with at least a 3.0 in such makeup course work. If the student's GPA in these probationary courses is 3.0 or better, classified standing may be granted. Courses taken to remove qualitative and quantitative deficiencies may not be applied to the M.A. program.

- Satisfactory completion of a written examination in an adviser-approved foreign language, or satisfactory completion of an upper-division course taught in an adviser-approved foreign language.
- 3. Development of an approved study plan.

#### Study Plan

A minimum of 30 units of course work must be completed with a minimum GPA of 3.0 to be distributed as follows:

500-Level Courses (18 units)

This requirement is met by 15 units at the 500-level in comparative literature or

courses cross-listed in English (one adviser-approved 500-level course in English may help satisfy this requirement) and one 3-unit course at the 500-level in a related area.

Upper-Division Courses (12 units):

Adviser-approved courses in comparative literature (6 units)

Adviser-approved courses in a related area (6 units)

(At least 3 units of related course work must be in foreign literature, read in the original language.)

At the conclusion of all course work, the student will take a comprehensive examination for the master's degree. Each section of the four-part comprehensive examination must be passed before the degree will be awarded. Any section(s) failed may be repeated once only. Notice of intention to take the examination must be on file with the graduate secretary within six weeks of the first class of the semester.

#### Thesis Option

The candidate may elect to write a thesis. For information, consult the graduate adviser.

For further information, consult the Department of English and Comparative Literature.

#### **BACHELOR OF ARTS IN ENGLISH**

English 101, a graduation requirement for all students, is not part of the English major but is a prerequisite to further work in English. The English major consists of 42 units. At least 30 units must be upper-division courses. In selecting courses, students are urged to consult a faculty member of the Department of English and Comparative Literature.

#### Required Courses (9 units)

English 300 Analysis of Literary Forms (3)
English 301 Advanced College Writing (3)
English 316 Shakespeare (3)

#### Survey Courses (at least 6 units)

English 311 British Literature to 1760 (3)
English 312 British Literature from 1760 (3)

English 321 American Literature to Whitman (3)

English 322 American Literature from Twain to the Moderns (3)

Comp Lit 324 World Literature to 1650 (3)

Comp Lit 325 World Literature from 1650 (3)

#### Period, Genre and Criticism Courses

(at least 9 units, including at least 3 units from courses prior to 1800, i.e., 423, 450, 451, 452, 453, 454, 455, 456)

English 423 Early American Literature (3)

English 450 Medieval Literature (3)

English 451 Elizabethan and Jacobean Drama (3)

English 452 Elizabethan Poetry and Prose (3)

English 453 17th-Century Poetry and Prose (3)

English 454 The Drama of the Restoration and the 18th Century (3)

English 455 Restoration and 18th Century Poetry and Prose (3)

English 456 The Development of the English Novel Through Jane Austen (3)

English 457 The Romantic Movement in English Literature (3)

English 458 Victorian Literature (3)

English 459 The Development of the 19th Century English Novel (3)

English 462 Modern British and American Novels (3)

English 463 Contemporary Novels in English (3)

English 464 Modern British and American Drama (3)

English 465 Contemporary Drama in English (3)

English 466 Modern British and American Poetry (3)

English 467 Contemporary Poetry in English (3)

English 491 Traditions of English Literary
Criticism (3)

English 492 Modern Critical Theory (3)

#### Major Author Courses (at least 3 units)

English 315 Chaucer (3)

English 317 Milton (3)

English 492 Modern Critical Theory (3)

#### Language Courses (at least 3 units)

English 303 Structure of Modern English (3)

English 305 The English Language in America (3)

English 440 History of the English Language (3)

#### Electives (at least 12 units)

Chosen from English and comparative literature courses numbered 201 and above.

#### MINOR IN ENGLISH

Students must complete a total of 21 units, including 15 units as described below and 6 units of electives. In selecting courses, students seeking a minor in English should consult a faculty member of the Department of English and Comparative Literature.

#### Required Courses (9 units)

English 300 Analysis of Literary Forms (3) English 301 Advanced College Writing (3) English 316 Shakespeare (3)

#### Survey Courses (at least 6 units)

English 311 British Literature to 1760 (3)

English 312 British Literature from 1760 (3)

English 321 American Literature to Whitman (3)

English 322 American Literature from Twain to the Moderns (3)

Comp Lit 324 World Literature to 1650 (3)

Comp Lit 325 World Literature from 1650 (3)

#### Electives (at least 6 units)

Chosen from additional English and comparative literature courses, with the exception of English 101 and 106.

Students may take the approved upperdivision writing course(s) in their majors instead of English 301. They must, however, complete 21 units in English and comparative literature.

#### **MASTER OF ARTS IN ENGLISH**

The master's degree program in English offers students the opportunity to achieve a multifaceted understanding of literature and language as well as to study particular areas of their own interest. Such areas include literature, linguistics, creative writing and the teaching of English. The degree is useful to those teaching in high schools or community colleges, to those seeking careers in writing and publishing, and to those intending to take further graduate work.

#### Admission to Graduate Standing: Conditionally Classified

University requirements include a bachelor's degree from an accredited institution and a minimum GPA of 2.5 in the last 60 semester units attempted.

A writing sample will also be required of all applicants. The writing sample should demonstrate advanced skill in literary analysis and expository writing. A paper written for a course and analyzing one or more elements in one or more literary works is preferred; the submitted copy should include the instructor's name and institution, and the grade received. Applicants who do not have course papers available should contact the department graduate adviser for advice. The writing sample should be approximately five to ten pages long, and it need not include secondary research.

#### Graduate Standing: Classified

Classified graduate standing requires a bachelor's degree in English from an accredited institution with at least a 3.0 grade-point average in the major courses provided that a minimum of 24 units of upper-division course work is included; or if the student holds a bachelor's degree in another major, 24 units of upper-division course work in English with at least a 3.0 grade-point average must have been completed. If the student lacks the prerequisite number of English courses, they must be made up before beginning work in the master's degree program, with at least a 3.0 in such makeup course work. In the event that the student's GPA in prerequisite English courses is less than 3.0, six to nine units of probationary, adviser-approved course work may be assigned. If the GPA in these probationary courses is 3.0 or better, the student may be classified.

Some courses taken to make up qualitative deficiencies may be credited toward the M.A., if completed with a grade of B or better, and if applicable to the student's particular study plan. Courses taken to remove quantitative deficiencies may not be applied to the M.A. program.

A student is required to have two years of one foreign language at the college or university level, an approved foreign language examination, or six units of study in comparative literature. If taken as graduate work, these six units may be applied to the master's degree under "units in subjects related to English."

A study plan must be developed and approved for admission to classified graduate standing.

#### Study Plan

500-Level Courses (18 units)

This requirement is met by English courses restricted to graduate students (500 series). With the permission of the graduate adviser, 3 of these 18 units may be taken in a comparative literature graduate seminar.

Upper-Division Courses in English (6-12 units)
Units in Subjects Related to English (6 units maximum)

To complete the degree requirements, students must pass a written comprehensive examination. Failed parts of the examination may be retaken only once. Notice of intention to take the examination must be on file with the graduate secretary within six weeks of the first class of the semester. With approval, students may substitute a research or creative writing project for one part of the examination.

Note: The student is strongly advised to take the steps necessary for admission to the program before registering for graduate courses. Part of the admission process is to confer with the graduate adviser, who will analyze prerequisites and designate those courses which will apply to the degree program. Courses taken by a conditionally classified student do not necessarily apply toward a degree. At the time the student achieves classified standing, no more than nine units of postgraduate course work may be applied to the master's degree program. For further information, consult the Department of English and Comparative Literature.

#### **COMPARATIVE LITERATURE COURSES**

- 110 Literature of the Western World from Ancient through Medieval Times (3) (Same as English 110)
- 111 Literature of the Western World from the Renaissance through the 19th Century (3)

(Same as English 111)

257 Writing Haiku (1) (Same as English 257)

#### 312 The Bible as Literature (3)

Prerequisite: upper-division standing. Literary qualities of biblical literature and the influence of major themes upon Western literary traditions. (Same as Religious Studies 312)

# 315 Classical Mythology in World Literature (3)

Prerequisite: upper-division standing. Greek and Roman myths which have been of continuing significance in Western world literature.

#### 324 World Literature to 1650 (3)

Prerequisite: upper-division standing. Oriental and western literature from the beginning to 1650.

#### 325 World Literature from 1650 (3)

Prerequisite: upper-division standing. Asian and Western literature from 1650 to the present.

# 347 The Fairy Tale (3) (Same as English 347)

**355T Images of Women in Literature (3)** (Same as English 355T)

# 373 Nineteenth Century Russian Literature (3)

Prerequisite: upper-division standing. Major writers such as Pushkin, Gogol, Dostoyevsky, Tolstoy, Chekhov, and their relationship to Western literature.

# 374 Twentieth Century Russian Literature (3)

Prerequisite: upper-division standing. Soviet peoples' literature from 1918 to the present. Basic trends in literary criticism. Major writers such as Gorky, Blok, Mayakovsky, Zamyatin, Zoshchenko, Akhmatova and Pasternak.

#### 380 Introduction to Asian Literature (3)

Prerequisite: upper-division standing. Selected translations of Arabic, Persian, Indian, Chinese and Japanese literature.

#### 381 African Literature (3)

(Same as English 381 and Afro-Ethnic Studies 381)

#### 423T Topics in Asian Literature (3)

Prerequisites: upper-division standing and English 200 or other appropriate course approved by the instructor. Specific topics will vary from semester to semester. May be repeated with different content for additional credit.

#### 450 Medieval Literature (3)

(Same as English 450)

#### 451 Literature of the Renaissance (3)

Prerequisites: survey of English, American, or world literature; an upper-division literature course; or equivalent. The Renaissance as a literary movement, from Erasmus to Montaigne and Cervantes.

# 465 The Novel in France and Germany (3)

Prerequisites: survey of English, American, or world literature; an upper-division literature course; or equivalent. Novels in translation; principles of the narrative arts. Major writers such as Goethe, Stendhal, Flaubert, Mann, Kafka, and Proust.

#### 499 Independent Study (1-3)

Prerequisite: junior or senior standing.

# 571T Graduate Seminar: Major Writers (3) (Same as English 571T)

#### 572T Graduate Seminar: Literary Genres (3)

(Same as English 572T)

#### 574T Graduate Seminar: Special Problems in Literature (3) (Same as English 574T)

# 575T Graduate Seminar: Topics in Teaching (3)

(Same as English 575T)

#### 579T Graduate Seminar: Problems in Criticism (3)

(Same as English 579T)

### 597 Project (3)

(Same as English 597)

#### 599 Independent Study (1-3)

#### **ENGLISH COURSES**

For world literature in English translation see courses under Comparative Literature.

#### 099 Developmental Writing (3)

An intensive course in basic writing skills. Designed to prepare students for English 101. Required of, and open only to, students who score below minimum standard on the English Placement Test (EPT). Degree credit is not awarded for this course. Instructional fee. (Same as Foreign Language Education 099)

### 101 Beginning College Writing (3)

Prerequisite: English 099, a satisfactory score on the English Placement Test, or exemption from the EPT. An introductory course in the fundamentals of expository prose. Emphasizes grammatical and basic rhetorical concepts and practices necessary for successful college writing. Instructional fee. (CAN ENGL 2)

### 105 Introduction to Creative Writing (3)

Exploratory creative writing with the opportunity to write in various genres. No credit toward the major.

### 110 Literature of the Western World from Ancient through Medieval Times (3)

Representative writers and works from the ancient through the medieval world. (Same as Comp Lit 110)

### 111 Literature of the Western World from the Renaissance through the 19th Century (3)

Representative writers and works from the Renaissance through the 19th century. (Same as Comp Lit 111)

### 199 Intensive Writing Review (3)

Prerequisite: consent of instructor. Restricted to students who have failed the EWP at least twice. Intensive review of the fundamentals of writing expository prose. Meets examination portion of baccalaureate writing requirement. Carries no credit toward graduation.

### 200 Introduction to Literature (3)

An introduction to the study of fiction, drama and poetry. Concentration on the critical understanding of literary types rather than on their historical development. Carries no credit toward the major.

### 204 Intermediate Creative Writing (3)

Prerequisite: English 105 or its equivalent, or a college-level literature course. A course providing experience in creative writing beyond the introductory level. Emphasis on poetry, the short story, and/or the one-act play.

### 257 Writing Haiku (1)

After a brief study of the development of haiku in Japan, students will write and revise haiku in English and share them with the class. With consent of instructor, may be repeated for no more than three units of credit. (Same as Comp Lit 257)

### 300 Analysis of Literary Forms (3)

The main literary forms—prose fiction, poetry and drama—are studied and analyzed. English majors should schedule this basic course as early as possible.

### 301 Advanced College Writing (3)

Prerequisite: English 101. An advanced course in writing expository prose. Emphasizes precision in rhetoric and development of individual style by concentration on matters of diction, audience, emphasis and persuasion. Required of English majors seeking a secondary credential. Instructional fee.

### 303 The Structure of Modern English (3)

Prerequisite: junior standing. The grammar of contemporary English. Modern English usage. Required of English majors seeking a secondary credential. Must be taken before student teaching.

### 305 The English Language in America (3)

American English, its origins, its regional and social dialects, and its role in American history and in such institutions as schools, corporations, government, and the media. (Same as Linguistics 305)

### 311 British Literature to 1760 (3)

Prerequisite: upper-division standing. Major periods and movements, major authors, and major forms through 1760.

### 312 British Literature from 1760 (3)

Prerequisite: upper-division standing.

Major periods and movements, major
authors and major forms from 1760 through
modern times.

### 315 Chaucer (3)

Prerequisite: English 101 or equivalent. The Canterbury Tales and Chaucer's language. The vocabulary, pronunciation, grammar and syntax of the East Midland dialect of Middle English.

### 316 Shakespeare (3)

Prerequisite: English 101 or equivalent. A study of the major plays.

### 317 Milton (3)

Prerequisite: English 101 or equivalent. The poetry and prose in the light of Milton's intellectual development.

### 321 American Literature to Whitman (3)

Prerequisite: upper-division standing.

Major writers such as Hawthorne, Poe,

Melville, Emerson, Thoreau, Whitman, and

Dickinson.

# 322 American Literature from Twain to the Moderns (3)

Prerequisite: upper-division standing.

Major writers such as Twain, James, Crane,
Hemingway, Faulkner, O'Neill, Frost, and
Eliot.

### 323T Cultural Pluralism in American Literature (3)

Prerequisite: junior or senior standing.

The role of varied cultural groups in the USA as exemplified in American literature. Topics may include Jewish writers, images of immigrants, Asian-American writers, American Indian literatures, and others.

### 325 American Ballad and Folksong (3)

Anglo-American balladry and folksong; their historical development, ethnic background and poetical values.

# 326 The American Frontier in Literature (3)

Prerequisite: any courses in American literature, American studies or American history. Thematic study of American literature as it reflects the changing frontier experience and establishes national myths and symbols.

### 347 The Fairy Tale (3)

Prerequisite: English 101. The development of the fairy tale in English. Includes early continental influences and covers such authors as the Brothers Grimm, H.C. Anderson, C. Rosetti, MacDonald, Barris, and Sendak. (Same as Comp Lit 347)

### 355T Images of Women in Literature (3)

Prerequisite: junior or senior standing. Images of women in genres such as autobiography, poetry, drama, novel. Individual sections may treat conventional literary periods or specific cultures. May be repeated with different content for additional credit. (Same as Comp Lit 355T)

### 360 Scientific and Technical Writing (3)

Open to science and non-science students. Scientific and professional writing and editing, with attention to outlines and abstracts, description, process explanation, instructions, and fundamentals of reports, feasibility studies, proposals, internal memos, and letters.

### 365 Legal Writing (3)

Advanced compositions stressing logic, reasoning, and legal analysis.

### 370 Horror Fiction (3)

Prerequisite: English 101 or equivalent. Horror/occult fiction (or "dark fantasy") from Mary Shelley to the present, including such writers as E. A. Poe, J. S. LeFanu, Bram Stoker, H. P. Lovecraft, Fritz Leiber and Stephen King.

### 371 Fantasy Fiction (3)

Prerequisite: English 101 or equivalent. Fantasy in literature from Ariosto to Brautigan.

### 372 Detective Fiction (3)

Prerequisite: English 101 or equivalent.

Detective fiction from Edgar Allan Poe to the present, including writers such as Sayers,

Christie, Chandler, Hammett and Ross

MacDonald.

### 373 Science Fiction (3)

Prerequisite: English 101 or equivalent.
Science fiction as a literary genre, including future-scene fiction, the utopian novel, the superman/woman novel and short stories.

### 374 The Gothic Novel (3)

Prerequisite: English 101. The development of the Gothic Novel in England from 1750-1850, including such authors as Walpole, Smith, Radcliffe, Lewis, Mary Shelley, Austen, Maturin, and Emily Brontë.

### 381 African Literature (3)

Prerequisite: junior or senior standing.

African literature written in the English language; the fiction, poetry and drama of the new nations. (Same as Comparative

Literature 381 and Afro-Ethnic Studies 381)

# 401 Exploration of Composing Theories (3)

Prerequisite: English 301 or equivalent. Writing processes explored through examination of one's own writing strategies and those of professional and student writers. Through interviews, observations, self-reflection, and readings in composition theory, students will answer the questions, What is writing? What is a writer?

# 402 Theories of Response to Written Composition (2)

Prerequisite: English 301 and 303 or equivalents. Corequisite: English 402S. To teach, tutor, and conference with writers, one must understand writing processes: starting, sustaining, and revising, composing rhythms; individual idiosyncracies. Through observations, practice, and journals, students will learn various theories of responding to writers. For tutors and (prospective) teachers.

### 402S Tutor Supervision (1)

Prerequisites: English 301 and English 303. Corequisite: English 402. Supervision of Writing Center tutors.

### 404T Advanced Creative Writing (3)

Prerequisite: English 204 or its equivalent. Instruction and practice in a workshop setting for the student with some experience in creative writing; emphasis on writing for professional markets. Consult the class schedule to determine section's emphasis. May be repeated for credit.

### 408 Editing a Literary Journal (3)

Prerequisites: junior or senior standing. Experience in day-to-day running of a literary journal under guidance. Activities include helping to select from submissions, reject manuscripts, write and place ads, select type faces and art work, administer contests, work with printers and maintain files. May be repeated for up to six units of credit, with a limit of three units applicable toward the English major.

### 416 Studies in Shakespeare (3)

Prerequisite: English 316 or consent of instructor. Problems of dramatic structure and artistic meanings.

### 420 Literature of the American Indians (3)

Prerequisite: junior or senior standing and one course in American Indian studies or American literature, or consent of instructor. The prose and poetry of the North American Indian tribes.

### 423 Early American Literature (3)

Prerequisite: English 321 or consent of instructor. Literature of colonial and revolutionary America, including the Puritans, 18th century deism and rationalism, and the literary antecedents of American democratic thought.

# 424 Introduction to Afro-American 1 011 Literature (3)

(Same as Afro-Ethnic 424)

### 429 American Landscape in Literature (3)

The American landscape in literature:
Literary perception of our environment, with special attention to what perceptions of the landscape reveal about human nature.

### 433 Children's Literature (3)

Prerequisites: one of the following: English 110, 111, 200, 300, 311, 312, 321, 322, Comp Lit 324, 325, or an equivalent course. World literature written primarily for children, including material from the oral tradition, realistic fiction, fantasy, and poetry.

# 434 Literature for Junior and Senior High School (3)

Prerequisite: junior or senior standing.

The evaluation, selection, and interpretation of fiction, non-fiction, drama and poetry reflecting the broad range of interest of young people from 12 to 17 years of age.

### 440 History of the English Language (3)

Prerequisite: English 303 or equivalent.
The historical development of English vocabulary, phonology, morphology, and syntax from Indo-European to modern American English.

### 441 Linguistics and Literature (3)

(Same as Linguistics 441)

# 442 Changing Words: History, Semantics and Translation (3)

(Same as Linguistics 442)

### 450 Medieval Literature (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Readings in modern English translation from the medieval literature of England and the continent from St. Augustine to Sir Thomas Malory. (Same as Comparative Literature 450)

### 451 Elizabethan and Jacobean Drama (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. The dramatic tradition in plays by such dramatists as Marlowe, Jonson, Webster, Beaumont and Fletcher.

### 452 Elizabethan Poetry and Prose (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. The nondramatic literature of the English Renaissance.

### 453 17th-Century Poetry and Prose (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Nondramatic literature of the period from 1603 to 1660 excluding Milton.

# 454 The Drama of the Restoration & the 18th Century (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Representative plays of the Restoration and the 18th century. The development of such dramatic movements as the heroic play, Restoration comedy, and sentimental drama.

# 455 Restoration and 18th Century Poetry and Prose (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major writers such as Butler, Rochester, Dryden, Pepys, Swift, Addison and Steele, Pope, Boswell, Johnson, and selected minor writers.

### 456 The Development of the English Novel through Jane Austen (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. The English novel from its beginnings to the 19th century including such novelists as Defoe, Richardson, Fielding, Sterne, and Austen.

# 457 The Romantic Movement in English Literature (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major writers such as Burns, Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

### 458 Victorian Literature (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major writers such as Carlyle, Tennyson, Browning, Arnold, Ruskin, and Pater.

### 459 The Development of the 19th-Century English Novel (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Major novelists such as the Brontes, Thackeray, Dickens, Eliot, and Hardy.

### 462 Modern British and American Novels (3)

Prerequisite: survey of English, American or world literature; an upper-division literature course; or consent of instructor. Modern British and American novels from 1900 to 1950.

### 463 Contemporary Novels in English (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. The novel in English since World War II.

### 464 Modern British and American Drama (3)

Prerequisite: survey of English, American or world literature; an upper-division literature course; or consent of instructor. British and American drama from 1900 to 1950.

### 465 Contemporary Drama in English (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Drama in English from 1950 to the present.

### 466 Modern British and American Poetry (3)

Prerequisite: survey of English, American or world literature; an upper-division literature course; or consent of instructor. British and American poetry from 1900 to 1950.

### 467 Contemporary Poetry In English (3)

Prerequisites: survey of English, American or world literature; an upper-division literature course; or equivalent. Poetry in English from 1950 to the present.

### 491 Traditions of English Literary Criticism (3)

Prerequisite: English 300 or consent of instructor. The major English critics, from the Renaissance to the beginning of the 20th century, in relationship to the classical theories of criticism.

### 492 Modern Critical Theory (3)

Prerequisite: English 300 or consent of instructor. The major movements in 20th-century British and American criticism.

### 498 English Internship (3)

Prerequisites: junior or senior status and consent of faculty supervisor. Experience in the practical application of studies in literature and language to work outside the university. Hours to be specified; enrollment limited; *C*/NC; no credit toward major.

### 499 Independent Study (1-3)

Prerequisite: junior or senior standing. Open to advanced students in English with consent of department chair. May be repeated for credit.

# 500 Introduction to Graduate Studies in Literature (3)

Research techniques, analytical approaches and theories of literature. A course providing basic orientation in graduate literary studies.

### 571T Graduate Seminar: Major Writers (3)

As appropriate to the specialized research and publication of instructor; major figures such as Shakespeare, Dante, Shakespeare, Cervantes, Goethe, Bronte, Twain, Joyce, Woolf, Allendale, Soyinks, and Morrison. May be repeated with different content for additional credit. (Same as Comp Lit 571T)

### 572T Graduate Seminar: Literary Genres (3)

As appropriate to the specialized research and publication of instructor, major literary types such as the epic, the novel, the short story, lyric poetry, tradegy, comedy, and historical drama. May be repeated with different content for additional credit. (Same as Comp Lit 572T)

### 573T Graduate Seminar: Cultural Periods (3)

As appropriate to the specialized research and publication of instructor, the literature of a cultural period from Anglo-Saxon to modern times. May be repeated with different content for additional credit.

# 574T Graduate Seminar: Special Problems in Literature (3)

As appropriate to the specialized research and publication of the instructor, special problems such as influences on literature, including philosophical, religious, scientific, geographic, and other ecological viewpoints. May be repeated with different content for additional credit. (Same as Comp Lit 574T)

# 575T Graduate Seminar: Topics in Teaching (3)

Specific topics will vary from semester to semester. May be repeated with different content for additional credit. (Same as Comp Lit 575T)

# 579T Graduate Seminar: Problems in Criticism (3)

Historical development and schools of criticism. Individual offerings within this course number may deal with only one aspect of critical problems. May be repeated with different content for additional credit. (Same as Comparative Literature 579T)

# 590 Writing Theory and Practice for Teaching Associates (3)

Prerequisite: English 402 and admission to the English Department Teaching Associate Program. Theory and practice of the composing process for the beginning college teacher of expository writing. Required of all English Department Teaching Associates during their first semester of teaching.

### 590S Teaching Associate Supervision (1)

Prerequisite: English 590. Supervised teaching of developmental writing and freshman composition. No credit toward the M.A. in English. This course may be repeated for credit.

# 591T Seminar: Topics in Rhetoric and Composition (3)

As appropriate to the specialized research of instructor, special topics on rhetoric and composition, including historical and theoretical approaches. May be repeated with different content for additional credit.

### 597 Project (3)

Prerequisite: classified graduate standing. A research paper, a critical study, a portfolio of creative writing, or the results of fieldwork or experiment. Supervising professor and English department graduate studies committee must approve the proposal in advance of registration.

### 599 Independent Graduate Research (3)

Research projects in areas of specialization beyond regularly offered course work. Oral and written reports. May be repeated with different content for additional credit.

### **ENGLISH EDUCATION COURSES**

# 404 Microcomputers for English Teachers (3)

Prerequisites: admission to the credential program or permission of the instructor. A hands-on computer course for secondary school English teachers. Focus is on the computer as a tool for English teachers and on classroom applications using computers to enhance instruction and improve writing and thinking skills.

# 442 Teaching English in the Secondary School (3)

Prerequisite: admission to teacher education. Principles, methods and materials of teaching English in the secondary school.

### 449E Externship in Secondary Teaching (3)

Student teaching in the secondary school during the first semester of the teacher

preparation program. The candidate plans and teaches assigned lessons during the last third of the semester.

### 449I Internship in Secondary Teaching (10)

Student teaching in the secondary school during the second semester of the teacher preparation program. The candidate has the same instructional hours of responsibility as the master teacher.

### 449S Seminar in Secondary Teaching (2)

One afternoon a week the candidate participates in a seminar with the university supervisor.

# environterdisciplinary program in human interaction with the environterdisciplinary program in

### INTRODUCTION

Environmental Studies is an interdisciplinary program in human interaction with the environment-cultural as well as natural. Courses integrate knowledge and methods from several disciplines, all of which independently study special aspects of the environment. The program treats the social and cultural aspects of human attempts to exploit, modify and achieve balance with the environment. Curricula include concerns for ecological change, environmental pollution,

technological solutions, balanced land utilization, and aspects of planning. The program prepares an individual student for work as a professional in the environmental field, and a student's thesis or project is the ultimate demonstration of his or her capacity to



deal broadly with the environment.

Students select a course of study consistent with one of the following three concentrations:

### **Environmental Sciences**

This area deals with the application of physical and biological science principles to environmental issues. Topical concerns include environmental ecology, water and air resources, environmental oceanography and geology. Students in this emphasis should have a strong background in biology, chemistry, earth science, engineering, geology or physics.

### Environmental Policy and Planning

This area deals with the concepts and methods of the social and behavioral sciences as applied to environmental policy and planning. Topical concerns include urban and regional planning, environmental aspects of administration, design, behavior, perception, law and economics. Students in this area may have backgrounds in the social or behavioral sciences and the humanities.

### **Environmental Education and Communication**

This emphasis approaches the study of the environment through such related disciplines as communication, biology, earth science and geography. Students require skills of observation, analysis and presentation appropriate for the classroom teacher, the outdoor naturalist or communication specialist. Students in this emphasis area should have a background in natural science, education or communications.

### MASTER OF SCIENCE IN ENVIRONMENTAL STUDIES

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of 3.0 in the last 60 units of course work attempted. In addition, three letters of recommendation are required.

### PROGRAM COORDINATOR:

Vacant

### **ASSOCIATE COORDINATOR:**

Joel Weintraub

### **PROGRAM OFFICE:**

McCarthy Hall 103

### PROGRAM OFFERED

Master of Science in Environmental Studies

### **PROGRAM COUNCIL**

Allan Axelrod (American Studies), Gordon Bakken (History), Dennis Berg (Sociology), Vincent Buck (Political Science), John Foster (Geological Science), Andrea Guillaume (Elementary Education), Stewart Long (Economics), Prem Saint (Geological Sciences), Lori Sheeran (Anthropology), Barry Thomas (Biological Science), Robert Voeks (Geography), Joel Weintraub (Biological Science), William Van Willis (Chemistry).

### **ADVISERS**

Program: Vacant

Environmental Sciences: Prem Saint

Environmental Policy and Planning: Dennis Berg

Environmental Education & Communication: Barry Thomas

An undergraduate course in ecology and one in statistics are prerequisites for admission. Students without these prerequisites may be admitted provisionally but must take these courses prior to or concurrent with their enrollment in study plan course work.

### Graduate Standing: Classified

After completion of no more than nine semester units of adviser-approved course work and the development of an approved study plan, the student should apply for classified standing.

### Study Plan

The M.S. in Environmental Studies requires the completion of 36 units of adviser-approved course work with a GPA of 3.0 or better and a thesis or project. The student's thesis committee should be comprised of three members, representing at least two different fields, with one being a member of the Environmental Studies Council. A student's project is supervised by a single faculty member.

Environmental Studies Core (9 units)

- 500 Environmental Issues and Approaches (3)
- 510 Environmental Evaluation and Protection (3)
- 520 Environmental Research and Analysis (3)

A student who can demonstrate competency in any core course subject matter may, with the permission of the graduate program adviser, substitute a suitable three-unit course.

Environmental Studies Electives (9-15 units)
Choose from:

595T Selected Topics in Environmental Problems (3)

596 Internship in Environmental Studies (3)

599 Independent Graduate Research (3)

Cross-Disciplinary Electives Work (9-15 units)

Courses outside Environmental Studies are chosen with prior approval of the faculty adviser and consistent with the student's area of interest.

No more than 12 units can be taken from the undergraduate major department. A three-unit planning course must be included.

Thesis 598 or Project 597 (3 units)

If students who have taken Environmental Studies 597 Project or 598 Thesis and received a grade of SP do not complete their project or thesis by the end of the second regular semester (one full year), they will be subject to probation for "lack of satisfactory progress towards the degree" and will be required to maintain continuous enrollment through regular (not Extended Education) enrollment.

The last day of the final exam period each semester is the deadline for Project completion (deadline for Thesis completion is set by the university) and by that date a notification of completion form (also to be used for theses) must be submitted with the faculty supervisor's signature and (if applicable) with change of grade card(s) from the faculty supervisor and with a copy of the receipt from the thesis-binding department of the bookstore indicating that a bound and title-embossed copy of the project or thesis has been ordered for the Environmental Studies Program office.

For further information, consult the graduate program adviser.

### **ENVIRONMENTAL STUDIES COURSES**

### 500 Environmental Issues and Approaches (3)

Prerequisite: graduate standing in Environmental Studies or consent of instructor. Discussions of interdisciplinary approaches to environmental problems and research methods. Students prepare seminars and papers on research design for potential thesis topics. Meets graduate writing requirement.

# 510 Environmental Evaluation and Protection (3)

Prerequisite: graduate standing in environmental studies or consent of instructor.

Environmental parameters (water, air, solid wastes, noise, radiation, etc.). Techniques in monitoring and measurement; effect on human health; environmental quality standards and controls. Demonstrations and field trips.

### 520 Environmental Research and Analysis (3)

Prerequisite: graduate standing in environmental studies or consent of instructor. Research methods and statistics used in the field of environmental studies. Research tools used in such areas a environmental field studies, environmental experiments, social environmental impacts, environmental attitudes and behavior and environmental trend analysis. Use of secondary data sources and computer required.

# 595T Selected Topics in Environmental Problems (3)

Prerequisite: graduate standing in environmental studies or consent of instructor. Various environmental topics, contemporary or historic, that focus on problems (e.g., law, endangered habitats, planning, global environmental issues, etc.) Topic chosen and outline will be circulated prior to registration. May be repeated four times (with different topics) for credit.

# 596 Internship in Environmental Studies (3)

Prerequisite: graduate standing in environmental studies or consent of instructor. Field experience with a governmental or private agency. Seminars and professional experience.

### 597 Project (3)

Prerequisites: classified status in environmental studies program and consent of instructor and program coordinator.

Planning, preparation and completion of an acceptable, interdisciplinary project. Credit on submission of project.

### 598 Thesis (3)

Prerequisites: classified status in environmental studies program and consent of instructor and program coordinator. Planning, preparation and completion of an acceptable, interdisciplinary thesis. Credit on submission of thesis.

### 599 Independent Graduate Research (1-3)

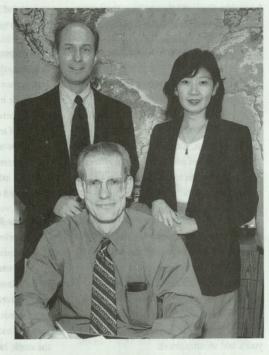
Prerequisite: graduate standing in environmental studies and consent of instructor and program coordinator. May not be repeated for credit.

# finance

### INTRODUCTION

In choosing their coursework, students are advised to choose one of the six tracks for study within the finance concentration. The corporate financial management track is designed to provide entry-level skills for students interested in the financial management of a non-financial firm. The insurance and financial services track is designed to provide students with skills to pursue a career in insurance. The financial institutions management track may lead to employ-

ment in banks or savings and loan associations. The investment and financial planning track is designed for students interested in positions with brokerage firms or financial planning firms. The real estate professions track is designed for students interested in careers in commercial brokerage, property management, property development and real estate finance. The international financial management track is designed for students who are interested in international investing and international financial management. Students may combine courses from different areas to meet a specialized educational objective.



### **ADVISERS**

The Business Advising Center,

Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements, registration and grading procedures, residence and similar academic matters. In addition, advising on curriculum content and career opportunities may be obtained from the chair of the Finance Department or from:

Financial Management: Joseph Reising

Insurance: Weili Lee

Personal Financial Planning: Donald Crane

Real Estate: Donald Valachi

Securities and Investments: Albert Fredman

Financial Institutions: Albert Buesco

### **CREDENTIAL INFORMATION**

For students interested in a teaching credential, the Department of Finance offers courses which may be included in Subject Matter Preparation and Supplementary Authorization Programs for secondary teaching.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department Office for Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education.

### **DEPARTMENT CHAIR**

John Erickson

### **DEPARTMENT OFFICE**

Langsdorf Hall 556

### **PROGRAMS OFFERED**

Bachelor of Arts in Business Administration

Concentration in Finance

Master of Business Administration

Concentration in Finance

### **FACULTY**

Albert Bueso, Su Chan, Carolyn Chang,
Donald Crane, John Erickson, Albert J.
Fredman, Joseph Greco, Tsong Lai, Yuming
Li, Weili Lu, Joseph Reising, Mark Stohs,
Marco Tonietti, Donald Valachi, Blaine
Walgren, Ko Wang, John Weigel.

### Awards in Finance

Chen-da Su Insurance Scholarship
The Wall Street Journal Award
Edward D'Cunha Finance Award
Financial Management Association Award
Investment Trust Award
Jack Nichols Scholarship Award
Outstanding Finance Student Award
Outstanding Service Award
Peter M. Mlynaryk Outstanding Real Estate
Award

Mercury Insurance Scholarship

# BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Finance Concentration."

# MASTER OF BUSINESS ADMINISTRATION

See "Business Administration, Finance Concentration."

### **FINANCE COURSES**

### 310 Personal Financial Management (3)

Financial problems of the household in allocating resources and planning expenditures. Housing, insurance, installment buying, medical care, savings and investments. (May not be used to fulfill the concentration requirement in finance.)

### 320 Business Finance (3)

Prerequisite: Accounting 201A. Corequisite: Management Science/Information Systems 361A. Financing business enterprises; financial planning and control; analysis of alternative sources and uses of combinations of short, intermediate- and long-term debt, and equity. Cost of capital. Study of capital investment decisions; capital budget analysis and valuation; working capital and capital structure management; relative impact on the international environment of financial decisions.

# 331 Working Capital Management and Computer Applications (3)

Prerequisite: Finance 320. Analysis of working capital management and policy. Use of available software programs and financial models in computer-aided analysis of working capital management, financial forecasting, financial planning, capital budgeting, leasing problems, investments and other financial issues.

### 332 Theory of Corporate Finance (3)

Prerequisite: Business Admin 301, Finance 320. Risk and return analysis. An introduction to the capital asset and arbitrage pricing models. Analysis of capital budgeting, capital structure, dividend policy, leasing, mergers and divestitures.

# 335 Financial Analysis for Investors and Lenders (3)

Prerequisite: Business Admin 301, Finance 320. Interpretation of financial statements from the perspective of both the financial analyst and the creditor. Emphasis on the economic meaning of financial statement data for the purpose of valuing the firm's securities.

### 340 Introduction to Investments (3)

Prerequisite: Business Admin 301, Finance 320. Institutional characteristics of securities markets, security valuation and trading methods, fundamental and technical analysis, selection and management of securities, introduction to the capital asset pricing model, role of options and futures markets, portfolio analysis and mutual funds.

### 342 Capital and Money Markets (3)

Prerequisite: Business Admin 301, Finance 320. Capital and money markets in the American and international economies; markets for new corporate and government issues; secondary markets; interrelation of financial institutions; factors influencing yields and security prices.

### 351 Introduction to Real Estate (3)

Prerequisite: Finance 320. Real estate principles, practices and investment decisions. Equity investment, finance, legal aspects, practices, principles, property development, real estate administration in the public sector, real estate market analysis, valuation.

### 355 Real Estate Investment Analysis (3)

Prerequisite: Finance 320. Alternative analytical techniques in evaluating real estate investments. Tax aspects, measurement of investment returns, application of computer models to investment decisions. Lecture, discussion and case analysis of major investment types - raw land, apartment houses, commercial and industrial uses.

### 360 Principles of Insurance (3)

Prerequisite: Finance 320. Life, casualty and liability insurance, individual and group insurance programs; methods of establishing risks and rates of return.

### 370 International Business Finance (3)

Prerequisite: Finance 320. Corequisite: Business Admin 301. Financing problems of international business. The international financial environment, taxation of foreign income, international capital and money markets, problems of risk in foreign investments, and financial techniques for the operation of a multinational firm.

### 371 Export-Import Financing (3)

Prerequisite: Finance 320. Institutional arrangements, methods and techniques used to finance international trade. Government and financial institution services. Risk-return aspects of international sales, insurance needs, the use of letters of credit, international factoring, accounts receivable insurance and other financing techniques. Review of required export-import documentation.

# 373 Asia-Pacific Financial and Security Markets (3)

Prerequisite: Finance 320. Overview of financial markets in Japan, Korea, Taiwan, China, Hong Kong, Singapore and Southeast Asia. Historical perspectives, regulations, more recent liberalizations, and internationalizations, and institutional technical aspects of the stock, bond, and other financial markets.

### 375 Global Financial Markets (3)

Prerequisite: Finance 320. This course focuses on the global dimension of financial markets, instruments and techniques, and the financial innovations that are rapidly changing these markets. The perspective of the course is both that of participants seeking to raise capital and those looking for new investment opportunities.

# 410 Theory & Practice of Personal Financial Planning (3)

Prerequisite: Finance 320. Developing, implementing and monitoring comprehensive personal financial plans. Includes risk management, investments, taxation, retirement and estate planning, as well as professional practices.

### 411 Retirement and Estate Planning (3)

Prerequisite: Finance 320. Development of retirement objectives, needs and financial condition. Forecasting retirement income from employer based retirement plans, IRAs, insurance policies, social security, investment programs. Medicare, medical, group life and health benefits after retirement. Property titling, wills and transfers in contemplation of death.

# 425 Commercial Bank and Financial Institution Management (3)

Prerequisite: Finance 320. The solution of financial institution problems. Major financial intermediaries and the decision-making problems they face. Regulation and its effect on management operations. Group problems and case studies.

# 432 Financial Forecasting and Budgeting (3)

Prerequisite: Finance 320. Forecasting in financial management; construction and interpretation of economic forecasts for the economy, industry and the firm; construction and interpretation of financial plans; evaluation of capital acquisition decisions under certainty and uncertainty.

### 433 Problems in Business Finance (3)

Prerequisite: Finance 332. Case studies. Group problems and case studies relating to estimation of funds requirements, long-term financial planning, evaluation of cash flows, financing acquisitions and mergers, capital budgeting and cost of capital. Team-building, leadership and computer-assisted presentation skills.

### 442 Advanced Investment Analysis (3)

Prerequisites: Finance 340 and Manag Sci/Info Sys 361A. Securities markets and company analysis, security valuation models, the CAPM and the APT option pricing, and portfolio models. Practical application of investment theory and recent literature will be emphasized.

### 444 Options and Futures (3)

Prerequisite: Finance 340. Put and call options, option pricing theory and models. Financial futures pricing, hedging strategies and models. Institutional characteristics of futures trading. Options and futures on stock indices. Options on futures, theoretical relationship between options and futures.

### 451 Real Estate Law (3)

Prerequisite: Finance 351. Real estate law. Cases provide illustrations of specific legal situations; financial institutions, property rights, zoning, land use law and environmental impact requirements.

### 452 Real Estate Finance (3)

Prerequisite: Finance 351. Financial institutions and real estate credit. Sources and uses of capital (funds) in financing real estate transactions. Money and capital markets and their effect on credit availability. Instruments in real estate finance. Investment methods and decisions. Group problems and case studies.

### 453 Real Estate Valuation (3)

Prerequisite: Finance 351. Real property value, historical evolution of valuation principles, approaches in urban and real property appraisals, alternative methods and techniques for property valuation.

### 454 Real Estate Market Analysis (3)

Prerequisite: Finance 351. Factors and influences of urban growth and development. Economic factors and real estate supply and demand. Location theory and urban growth patterns. Public policy as a factor in real estate development. Analysis of real estate markets.

# 456 Property Development and Management (3)

Prerequisite: Finance 351. Decision making process in the property development process - from raw land to marketing and management of the completed product. Policy formulation and implementation, project feasibility analysis, financial analysis, computer assisted analysis; case studies.

### 461 Business Property and Liability Risk Managememt (3)

Prerequisite: Finance 360. Course covers the duties and functions of a risk manager, the major commercial property and liability lines including commercial property, business income, general liability, commercial auto, workers compensation, business owner insurance and the operation of property-liability insurers.

### 462 Life and Health Insurance (3)

Prerequisite: Finance 360. This course is designed to analyze various types of life and health insurance products and to evaluate relevant contracts. Major employee benefit plans adopted by corporations are also discussed. In addition, the organization and management of life and health insurance companies is included.

### 495 Internship (1-3)

Prerequisites: Finance 332, a concentration in finance, consent of department internship adviser, junior standing, 2.5 GPA and one semester in residence at the university. Also open to international business majors. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

### 499 Independent Study (1-3)

Prerequisites: Finance 320 and consent of the instructor. Open to undergraduate students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

### 517 Managerial Finance (3)

Prerequisites: Accounting 510 and classified SBAE status. The methodology of financial management. The primary tools for financial analysis, long-term investment decisions, valuation and working capital management. International applications.

### 523 Seminar in Corporate Financial Management (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. The analysis of the financial decision-making process through case studies and seminar presentations.

Current financial theory and models.

International applications.

# 533 Seminar in Financial Administration (3)

Prerequisites: Finance 523 and classified SBAE status. Optimal financing and asset administration; advanced techniques of capital budgeting; application of analytical methods to the administration of the finance function of the business firm.

### 540 Seminar in Financial Markets (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. Structure and operation of major financial institutions; portfolio composition, price-cost problems, and market behavior; analysis of financial intermediation and interrelation of financial institutions and markets.

### 541 Seminar in Investment Management (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. Problems of investment and portfolio management; concepts of risk evaluation and investment criteria; analysis of interest rate movements; investment valuation and timing; regulation and administrative problems of the industry.

### 551 Seminar in Real Estate Investment (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. Problems of real estate investment; concepts of evaluation and investment criteria; analysis of real property values; real estate development and financing. Case studies.

# 561 Seminar in Risk Management and Insurance (3)

Prerequisite: Finance 517 or equivalent and classified SBAE status. The examination techniques and policies used by corporations and individuals for managing life, health, property, liability, interest rate, foreign investment and financial risks. To study how to identify, evaluate and manage both pure risk and speculative risk.

# 570 Seminar in International Financial Management (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. The financial problems of the multinational firm.

International financing instruments, capital investment decisions, and constraints on the profitability of multinational businesses.

### 597 Project (3)

Prerequisite: Finance 517 or equivalent and classified SBAE status, consent of instructor and approval by Department Chair. Directed independent inquiry. Not open to students on academic probation.

### 599 Independent Graduate Research (1-3)

Prerequisites: Finance 517 or equivalent and classified SBAE status, consent of instructor and approval by Department Chair and Associate Dean. May be repeated for credit. Not open to students on academic probation.

# oreign languages

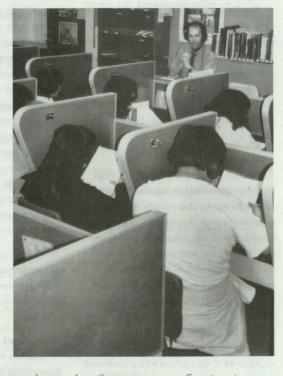
### INTRODUCTION

The Department of Foreign Languages and Literatures offers a wide diversity of programs of language study, aimed at meeting the varying needs of today's students.

In our rapidly changing world, it is imperative that we lower the barriers that impede understanding. Communicating effectively in a foreign language is not, however, simply an exercise in the acquisition of linguistic skills. In learning another language, we also gain insight into the thinking of another culture (often very dif-

ferent from our own), insights which afford us the perspective necessary to examine critically our own cultural values. In our department we view language, culture, and literature as integrally-related facets of the complex phenomenon of human communication which help us to better understand each other and our roles in the ever-changing process of civilization.

Our department has wellestablished baccalaureate programs in French, German, Japanese, and Spanish and master's programs in French, German, and Spanish. Additionally, we offer a postbaccalaureate program leading to a Certificate in Teaching English as a Second Language and an M.S. in Teaching English to Speakers of Other



Languages (TESOL). In addition to our degree and certificate programs we offer minors in French, German, Japanese, Portuguese, and Spanish. Course work is also offered in Vietnamese, Chinese and Arabic

Students interested in developing language competencies find a variety of programs in Foreign Languages and Literatures. Programs are designed for those who wish to pursue more advanced studies of language and literatures as well as for the growing number of individuals who will find foreign language ability and sensitivity to other cultures an increasingly important adjunct in preparation for a career. Our programs are designed for those planning careers in social services, the foreign service, teaching, translation services, literary fields, international finance and banking, and the rapidly expanding world of international business, especially in management and marketing.

Our goal is to assist students in developing competence in a second language, (all courses are taught in the target language), to deepen their knowledge about language and the humanities by reading representative authors in its literature, and to familiarize them with the cultural traditions of the people whose language they are studying.

### **FACULTY**

Linda Andersen, Nancy Baden, Margot Benardo, Modesto Dîaz, Héléne Domon, Michele Druon, Janet Eyring, Juan Carlos Gallego, Leon Gilbert, Ronald Harmon, Josefina Hess, Arturo Jasso, Keiji Matsumoto, George Peale, Ervie Peña, Marcial Prado, Setsue Shibata, Curtis Swanson, Marjorie Tussing, Eva Van Ginneken, Lydia Vélez. Reyes von Schmidt, Cheryl Zimmermann.

### **DEPARTMENT CHAIR:**

Leon J. Gilbert

### **DEPARTMENT OFFICE:**

Humanities 835C

### LANGUAGE LABORATORY:

Humanities 325

### **PROGRAMS OFFERED**

Bachelor of Arts in French

Minor in French

Master of Arts in French

Bachelor of Arts in German

Minor in German

Master of Arts in German

Bachelor of Arts in Japanese

Minor in Japanese

Minor in Portuguese

Bachelor of Arts in Spanish

Minor in Spanish

Master of Arts in Spanish

Master of Science in Education

(Teaching English to Speakers of Other Languages)

Certificate in Teaching English to Speakers of Other Languages

### **CREDENTIAL INFORMATION**

The Department of Foreign Languages and Literatures offers an approved Single Subject Matter Preparation Program in French, German, Japanese, and Spanish for prospective teachers seeking the Single Subject (Secondary) Teaching Credential.

Students interested in applying to a teacher education credential program must consult with a teacher education adviser for a preliminary program review one year prior to application to the program. Information concerning the programs is available from Teacher Education.

Before being admitted to a credential program, all prospective teachers will be asked to pass a proficiency examination in which their skills of listening, speaking, reading, writing, knowledge of linguistic principles as well as the target culture will be tested. They must also prepare a portfolio which illustrates their increasing proficiency in language, linguistics, literature, and culture. Students should inquire at the department office for current information.

### **SPECIAL PROGRAM INFORMATION**

### Language Concentration for International Business

The Department of Foreign Languages and Literatures offers a language concentration in Chinese, French, German, Japanese, Portuguese, and Spanish for the International Business major consisting of 15 units of upper-division language study (includes internship). These courses as well as the prerequisites must be completed with a grade of C or better. For description of the international business program, please see School of Business Administration in this catalog.

### **International Programs**

The Department of Foreign Languages and Literatures encourages students to participate in a study-abroad program. Such programs facilitate student mastery of the language and will afford additional insights into the foreign culture. The California State University's International Programs offers a wide variety of study opportunities on the junior, senior, and graduate level. Exchange programs are also available with the University of Paris (France), the Autonomous University of Guadalajara (Mexico), the University of Nanzan (Japan), and the Moscow Institute for Steel and Alloys (Russia).

Language majors are required to complete the following minimum of courses on campus before departure for, or upon return from, overseas:

- A. For the B.A.: 12 units of upper-division courses consisting of a minimum of six units at the 400 level in the major
- B. For the M.A.: 15 units consisting of a minimum of 12 units at the 500 level in the area of specialization.

# The CSU/UCLA Cooperative Program in Foreign Languages and Literatures

The Cooperative Program in Foreign Languages and Literatures gives students the opportunity, without additional fees, to take courses in foreign languages not available on this campus or any neighboring CSU campus but offered at UCLA. For information regarding enrollment and qualifications, interested students should inquire at the department office.

### The Language Laboratory

Students enrolling in a variety of foreign language courses may be required, in addition to the regular class periods, to complete assignments in the department's language laboratory. The 18-station audio laboratory operates like a library; students may use it at a time most convenient to them, preferably every day in sessions of 15 to 30 minutes. In addition to the audio lab, there is a 24-station state-of-the-art computer laboratory featuring multimedia, interactive capabilities designed to facilitate both individual and group learning activities in conjunction with a networked instructor station. Further details will be announced by each instructor.

### Advisers

Undergraduate: All faculty members serve as advisers. Students may check at the department office to determine their faculty adviser.

Foreign Language Teacher Education and TESOL: Nancy Baden, Janet Eyring, Juan Carlos Gallego, Ronald Harmon, Marjorie Tussing.

Graduate: Michele Druon (M.A. in French), Marjorie Tussing (M.A. in German), Josefina Hess (M.A. in Spanish), Janet Eyring (M.S. in Education TESOL).

### Placement

Students should enroll at that point in the sequence of courses for which their previous study and/or experience prepares them.

Students with no language background should enroll in fundamental 101-level courses. Normally, two years of high school language study are considered to be equivalent to one year of college language. Students just completing two years of high school language should begin at 200-level intermediate courses. A minimum of four years of high school language, or its equivalent, is considered a prerequisite for more advanced 300-level major work.

Courses at the 101-level are not open to students who have completed two or more years of high school study or one term of college study in that language, unless such study was completed three years or more before entering the class. Courses at the 102-level are not open to students who have completed two or more years of high school study or two terms of college study in that language, unless such study was completed two years or more before entering the class. Language courses at the 100-level are not open to native speakers of that language.

Due to the sequential nature of language instruction, consultation with an adviser in the Department of Foreign Languages and Literatures is essential before enrolling in a course.

### Academic Standards Requirement

Each course counted toward the major or minor must be completed with a grade of C or better.

### International Baccalaureate Program

Students entering the university with the International Baccalaureate will be given an oral interview with two instructors of the target language. Subject to their recommendation, the following policy will be in effect:

Students with the International
Baccalaureate Higher Level Language B Exam
with a grade of four or better will have lowerdivision requirements waived and upon recommendation will receive three to twelve
units of upper-division language credit.

Students with the International
Baccalaureate Subsidiary Level Language B
Exam with a grade of four or better will have lower-division requirements waived and upon recommendation will receive up to six units of upper-division language credit. If no upper-division units are recommended, a minimum of six units of 200-level credit will be awarded.

### Transfer Students

In accordance with university rules, all transfer students must complete 30 units in residence at Cal State Fullerton. Of these 30 units, the transfer student majoring in French, German, Japanese or Spanish is required to complete 12 upper-division units, i.e., 300, 400 or 500-level courses, including 9 units of 400-level classes in the major on the Cal State Fullerton campus. The specific courses will be determined in consultation with the studentis adviser and approved by the chair.

### Upper-Division Writing Requirement

Foreign language (FLNG) 301 or English 301 satisfies the course portion of the upperdivision writing requirement for all foreign language majors.

### **BACHELOR OF ARTS IN FRENCH**

The Bachelor of Arts in French consists of 30 units of upper-division French course work, plus the required 3-unit upper-division writing course, Foreign Language (FLNG) 301 or English 301. Prior to undertaking upper-division work, the French major will have completed the following lower-division courses or their equivalents:

### Basic Requirements (20 units)

Each of the following courses or their equivalent:

French 101 Fundamental French-A (5)

French 102 Fundamental French-B (5)

French 203 Intermediate French-A (3)

French 204 Intermediate French-B (3)

French 213 Intermediate Diction and Phonetics (2)

French 214 Intermediate Conversation and Composition (2)

### Upper-Division Requirements

(a total of 33 upper-division units) (Italicized classes are required.)

### I. Upper-Division Writing Requirement (3 units required)

Foreign Language 301 Writing in an
Intercultural Context (3)

OR English 301 Advanced College
Writing (3)

# II. Language (3 units required\*, up to 9 units)

French 307 Advanced Composition and Grammar (3)

OR French 308 Advanced Composition and Grammar (3)

French 310 French in the Business World (3)

French 409 Techniques of French-English Translation (3)

# III. Linguistics (3 units required\*, up to 9 units)

French 300 Advanced Oral Expression and Phoenetics (3)

French 408 Advanced Writing: Syntax and Morphology (3)

French 466 Introduction to French Linguistics (3)

# IV Civilization and Culture (6 units required, up to 12 units)

French 315 Origins of Modern France (3)

French 325 Contemporary French Civilization (3)

French 311 French for International Business (3)

French 407 French Film (3)

French 435T Topics in French/Francophone Culture (3)

# V. Literature (6 units required, up to 12 units)

French 375 Explorations in Literature (3)
One of the following:

French 470 French Literature & Power (3)

French 471 Literature and the Human Psyche (3)

French 472 Philosophical Exploration in Literature (3)

### VI. Capstone Seminar (3 units required)

French 485 Senior Seminar in French Studies (3)

### VII. Electives (9 units required)

Plus in consultation with your adviser, choose nine (9) additional units of electives of which a minimum of six must be at the 400-level, from at least two of the categories IL-V. listed above.

### MINOR IN FRENCH

### Basic Requirements (20 units)

Each of the following courses or their equivalent:

French 101 Fundamental French-A (5)

French 102 Fundamental French-B (5)

French 203 Intermediate French-A (3)

French 204 Intermediate French-B (3)

French 213 Intermediate Diction and Phonetics (2)

French 214 Intermediate Conversation and Composition (2)

### Upper-Division Requirements

(a total of 12 units)

(6 units required from these courses)

French 307 Advanced Composition and Grammar (3)

OR French 308 Advanced Composition and Grammar (3)

French 315 Origins of Modern France (3)

OR French 325 Contemporary French Civilization (3)

Plus in consultation with an adviser, choose two additional electives from the following (if not taken above) - 6 units required:

French 300 Advanced Oral Expression and Phoentics (3)

French 307 Advanced Composition and Grammar (3)

OR French 308 Advanced Composition and Grammar (3)

French 310 French in the Business World (3)

French 311 French for International Business (3)

French 315 Origins of Modern France (3)

OR French 325 Contemporary

French Civilization (3)

French 375 Explorations in Literature (3)

French 407 French Film (3)

French 408 Advanced Writing: Syntax and Morphology (3)

French 409 Techniques of French-English Translation (3)

French 415 French Classicism (3)

French 425 French Romanticism (3)

French 435T Topics in French/Francophone
Culture (3)

French 466 Introduction to French Linguistics (3)

<sup>\*</sup> Six (6) units are required in areas II. And III. for the Single Waiver for the Secondary Education Teaching Credential.

French 470 French Literature & Power (3)

French 471 Literature and the Human Psyche (3)

French 472 Philosophical Exploration in Literature (3)

French 475A Exploration of the Self (3)

French 475C The Individual and Society (3)

French 475D Literature and Anti-Literature (3)

French 485 Senior Seminar in French Studies (3)

### **BACHELOR OF ARTS IN GERMAN**

The Bachelor of Arts in German consists of 30 units of upper-division German course work, plus the required 3-unit upper-division writing course, Foreign Language FLNG 301 or English 301. Prior to undertaking upper-division work, the German major will have completed the following lower-division courses or their equivalents:

### Basic Requirements (20 units)

Each of the following courses or their equivalent:

German 101 Fundamental German-A (5)

German 102 Fundamental German-B (5)

German 203 Intermediate German-A (3)

German 204 Intermediate German-B (3)

German 213 Intermediate Reading-A (2)

German 214 Intermediate Reading-B (2)

### Upper-Division Requirements

(a total of 33 upper-division units) (18 units required as listed below)

Foreign Language 301 Writing in an Intercultural Context (3)

OR English 301 Advanced College Writing (3)

German 305 Advanced Conversation and Composition (3)

German 315 Introduction to German
Civilization (3)

German 325 Current Trends in Culture of German-Speaking Peoples (3)

German 335 Introduction to Literature (3)

German 399 German Phonetics (3)

Plus in consultation with an adviser, choose three of the following literature courses (9 units required):

German 430 German Literature and Culture to the Baroque (3)

German 440 18th-Century German
Literature and Culture (3)

German 450 19th-Century German
Literature and Culture (3)

German 460 20th-Century German Literature and Culture (3)

German 482 German Literature & Culture in Film (3)

Plus in consultation with an adviser, choose two courses from the following (6 units required):

German 300 German Conversation (3)

German 310 German in the Business World (3)

German 311 German for International Business (3)

German 400 Advanced Conversation
Practice and Vocabulary Expansion (3)

German 405 Advanced Writing and Speaking (3)

German 466 Introduction to German Linguistics (3)

German 485T Senior Seminar in German Literature (3)

### **MINOR IN GERMAN**

### Basic Requirements (20 units)

Each of the following courses or their equivalent:

German 101 Fundamental German-A (5)

German 102 Fundamental German-B (5)

German 203 Intermediate German-A (3)

German 204 Intermediate German-B (3)

German 213 Intermediate Reading-A (2)

German 214 Intermediate Reading-B (2)

### Upper-Division Requirements

(12 units)

(6 units required from this section)

German 305 Advanced Conversation & Composition (3)

German 315 Introduction to German Civilization (3)

OR German 325 Current Trends in Culture of German-Speaking Peoples (3)

Plus in consultation with an adviser, choose two additional courses from the following (6 units required):

German 300 German Conversation (3)

German 310 German in the Business World (3) German 311 German for International Business (3)

German 315 Introduction to German Civilization (3)

German 325 Current Trends in Culture of German-Speaking Peoples (3)

German 335 Introduction to Literature (3)

German 399 German Phonetics (3)

German 400 Advanced Conversation Practice and Vocabulary Expansion (3)

German 405 Advanced Writing and Composition (3)

German 466 Introduction to German Linguistics (3)

German 485T Senior Seminar in German Literature (3)

### **BACHELOR OF ARTS IN JAPANESE**

The Bachelor of Arts in Japanese consists of 30 units of upper-division Japanese course work, plus the required 3-unit upper-division writing course, Foreign Language FLNG 301 or English 301. Prior to undertaking upper-division work, the Japanese major will have completed the following lower-division courses or their equivalents:

### Basic Requirements (20 units)

Each of the following courses or their equivalent:

Japanese 101 Fundamental Japanese-A (5)

Japanese 102 Fundamental Japanese-B (5)

Japanese 203 Intermediate Japanese-A (5)

Japanese 204 Intermediate Japanese-B (5)

# Upper Division Core Requirements (18 units)

Choose from among the following courses

Japanese 305 Advanced Japanese-A (3)

Japanese 306 Advanced Japanese-B (3)

Japanese 307 Advanced Spoken Japanese (3)

Japanese 308 Advanced Written Japanese (3)

Japanese 310 Japanese for Business (3)

Japanese 311 Japanese for International Business (3)

Japanese 315 Introduction to Japanese Civilization (3)

Japanese 316 Modern Japan (3)

### Upper Division Electives (12 units)

Choose from among the following:

Japanese 375 Introduction to Literary Forms (3)

Japanese 410 Classical Japanese (3)

Japanese 430 Introduction to Japanese Classic Literature (3)

Japanese 440 Introduction to Modern Japanese Literature (3)

Japanese 466 Introduction to Japanese Linguistics (3)

Japanese 468 Japanese-English Contrastive Analysis (3)

Japanese 485T Senior Seminar: Variable
Topics in Japanese (3)

Japanese 499 Independent Study (1-3)

### MINOR IN JAPANESE

Basic Requirements (20 units)

Each of the following courses or their equivalent:

Japanese 101 Fundamental Japanese-A (5)

Japanese 102 Fundamental Japanese-B (5)

Japanese 203 Intermediate Japanese-A (5)

Japanese 204 Intermediate Japanese-B (5)

### Upper-Division Requirements (12 units)

Six units required from the following:

Japanese 305 Advanced Japanese-A (3)

Japanese 306 Advanced Japanese-B (3)

Japanese 307 Advanced Spoken Japanese (3)

Japanese 308 Advanced Written Japanese (3)

Six units from among the following:

Japanese 310 Japanese for Business (3)

Japanese 311 Japanese for International Business (3)

Japanese 315 Introduction to Japanese Civilization (3)

Japanese 316 Modern Japan (3)

Japanese 375 Introduction to Literary Forms (3)

Japanese 410 Classical Japanese (3)

Japanese 430 Introduction to Japanese Classic Literature (3)

Japanese 440 Introduction to Modern Japanese Literature (3)

Japanese 466 Introduction to Japanese
Linguistics (3)

Japanese 468 Japanese-English Contrastive Analysis (3)

Japanese 499 Independent Study (1-3)

### **MINOR IN PORTUGUESE**

### Basic Requirements (8 units)

Each of the following courses or their equivalent:

Portuguese 101 Fundamental Portuguese-A (4)

Portuguese 102 Fundamental Portuguese-B (4)

### Upper-Division Requirements (12 units)

Portuguese 310 Portuguese in the Business World (3)

Portuguese 317 Advanced Conversation and Composition (3)

Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)

Portuguese 325 Contemporary Brazilian Civilization (3)

### **BACHELOR OF ARTS IN SPANISH**

The Bachelor of Arts in Spanish consists of 33 units of upper-division Spanish coursework, plus the required 3-unit upper-division writing course, Foreign Language FLNG 301 or English 301. Prior to undertaking upper-division work, the Spanish major will have completed the following lower-division courses or their equivalents:

### Basic Requirements (17-22 units)

Spanish 101/102 Fundamental Spanish (10) OR Spanish 105 Intensive Review of

Fundamental Spanish (5)

Spanish 201 Spanish for Spanish Speakers (3)

OR Spanish 203 Intermediate

Spanish A (3)

Spanish 204 Intermediate Spanish B (3)

Spanish 213 Intermediate Conversation\* (3)

Spanish 214 Intermediate Composition (3)

### Upper-Division Requirements (36 units)

# I. Upper-Division Writing (3 units required)

Foreign Language 301 Writing in an Intercultural Context (3)

OR English 301 Advanced College Writing (3)

### II. Language (6 units required)

Spanish 301 Advanced Conversation and Composition (3)

Spanish 400 Advanced Writing (3)

### III. Culture (6 units required)

Spanish 315 Introduction to Spanish Civilization (3)

Spanish 316 Introduction to SpanishAmerican Civilization (3)

### IV. Literature (9 units required)

Spanish 375 Introduction to Literary Forms (3)

Spanish 430 Spanish Literature to Neoclassicism (3)

OR Spanish 461 Spanish Literature Since Neoclassicism (3)

Spanish 441 Spanish-American Literature (3)

### V. Linguistics (6 units required)

Spanish 466 Introduction to Spanish Linguistics (3)

Spanish 467 Dialectology: Current Trends in Modern Spanish (3)

OR Spanish 468 Spanish-English Contrastive Analysis (3)

### VI. Seminar (3 units required)

Spanish 475T Topics in Spanish Peninsular Literature (3)

OR 485T Topics in Spanish American Literature (3)

### VII. Elective (3 units required)

Spanish 300\*, 415, 416, and any of above not already taken, chosen in consultation with an adviser; 475T and 485T may be repeated with different topic. Spanish 310 and 311 not applicable.

\*Spanish 213 and 300 not open to native speakers

### MINOR IN SPANISH

### Basic Requirements (17-22 units)

Each of the following courses or their equivalent:

Spanish 101/102 Fundamental Spanish (10)

OR Spanish 105 Intensive Review of Fundamental Spanish (5)

Spanish 201 Spanish for Spanish Speakers (3)

OR Spanish 203 Intermediate Spanish A (3)

Spanish 204 Intermediate Spanish B (6)

Spanish 213 Intermediate Conversation\* (3)

Spanish 214 Intermediate Composition (3)

### Upper-Division Requirements (12 units)

Six units required from the following:

Spanish 301 Advanced Conversation and Composition (3)

Spanish 315 Introduction to Spanish Civilization (3)

OR Spanish 316 Introduction to Spanish American Civilization (3)

Plus in consultation with an adviser, choose two additional upper-division courses from the following:

Spanish 300 Spanish Conversation\* (3)

Spanish 315 Introduction to Spanish Civilization (3)

Spanish 316 Introduction to Spanish American Civilization (3)

Spanish 375 Introduction to Literary Forms (3)

Spanish 400 Advanced Writing (3)

Spanish 415 Contemporary Spanish Culture (3)

Spanish 416 Contemporary Spanish American Culture (3)

Spanish 430 Spanish Literature to Neoclassicism (3)

Spanish 441 Spanish American Literature (3)

Spanish 466 Introduction to Spanish Linguistics (3)

Spanish 467 Dialectology: Current Trends in Modern Spanish (3)

Spanish 468 Spanish-English Contrastive Analysis (3)

Spanish 475T Senior Seminar: Topics in Spanish Peninsular Literature (3)

Spanish 485T Senior Seminar: Topics in Spanish American Literature (3)

\*Not open to native speakers

# CERTIFICATE FOR TEACHERS OF ENGLISH AS A SECOND LANGUAGE

In cooperation with the Department of English and the program in Linguistics, the Department of Foreign Languages and Literatures offers a Certificate for Teachers of English as a Second Language (TESOL). The program consists of 24 units, some of which (with consent of the admitting committee) may be taken during the candidate's undergraduate study. In order to participate in the program, students must declare the TESOL Certificate along with their degree objective.

### **Admission Requirements**

- Senior standing or admission to either
  postbaccalaureate or graduate standing.
- Overall GPA of 2.5 (minimal) and 3.0 in the major.

- Completion of Foreign Language 301 or English 301 and 303 with grades of B or better.
- 4. At least two years of one foreign language or one year each of two different foreign languages or the equivalent with an average 3.0 GPA. This requirement will normally be waived for students from foreign countries who have studied English as a foreign language.
- 5. Oral and written proficiency in English to be determined at time of application. A minimum TOEFL score 573 paper (230 computer) and a minimum score of 55 on the Test of Spoken English are required for non-native English speaking applicants who completed their bachelor's degrees outside of the U.S.
- Consent of the admitting committee to enter the program and to develop a study plan.

### Required Core Courses

Contrastive Analysis - one of the following:

Japanese 468 Japanese-English Contrastive Analysis (3)

OR Spanish 468 Spanish-English Contrastive Analysis (3)

OR Foreign Language Education 468 Language Transfer and TESOL (3)

### Methods

(It is highly recommended that French, Spanish, German, Japanese 466, or Linguistics 406 be taken prior to 443A and B.)

Foreign Language Education 443A Principles of Teaching English to Speakers of Other Languages (3)

Foreign Language Education 443B Principles of Teaching English to Speakers of Other Languages (3)

### Practicum:

Foreign Language Education 596 TESOL Practicum (3)

The practicum is to be taken at the end of the program. Students must consult with an adviser the semester before the practicum. Prerequisites are Foreign Language Education 443A, 443B, Spanish 468 or Foreign Language Education 468.

The methods and contrastive analysis courses must be completed with an average of B or better in order for students to enroll in the practicum.

### Electives (12 units required)

(To be completed from each of the following areas of concentration)

### English elective (3 units)

English 305 The English Language in America (3)

English 402/402S Theories of Response in Composition/Tutor Supervision (2/1)

English 440 History of the English Language (3)

Foreign Language Education 470
Pedagogical Grammar in TESOL (3)

English 590 Writing Theory and Practice (3)

### Foreign Language elective (3 units)

Spanish 466 Introduction to Spanish Linguistics (3)

French 466 Introduction to French Linguistics (3)

German 466 Introduction to German Linguistics (3)

Japanese 466 Introduction to Japanese Linguistics (3)

Spanish 467 Dialectology: Current Trends in Modern Spanish (3)

Foreign Language Education 527 Theory of Bilingual Language Acquisition (3)

An adviser-approved course may be substituted for one of the above foreign language courses for those students who do not have sufficient foreign language prerequisites or whose foreign language is English.

### Linguistics elective (3 units)

Linguistics 307 Speech/Language Development (3)

Linguistics 351 Introduction to Linguistic Phonetics and Phonology (3)

Linguistics 406 Descriptive Linguistics (3)

Linguistics 412 Sociolinguistics (3)

Linguistics 501 Research Methods and Bibliography (3)

Linguistics 505 Phonological Analysis (3)

Linguistics 507 Grammatical Analysis (3)

Linguistics 508 Theories of Syntax (3)

### Other electives (3 units)

A 400- or 500-level course in one of the elective areas, or student may choose one elective from any of the following: American studies, American literature, education, anthropology, speech communication or other applicable courses in foreign languages and linguistics with the certificate adviser's approval.

### MASTER OF ARTS IN FRENCH

### Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted. See the section of this catalog on admission of graduates for the complete statement and procedures.

### Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements may be granted classified graduate standing upon the development of an approved study plan: a major in French consisting of 24 units (or equivalent) of upper-division studies with above-average scholarship. (A candidate presenting a B.A. which has fewer than 24 upperdivision units in the language, or is otherwise inadequate, will be required to take additional courses to build a full undergraduate major before beginning the graduate program.) The student must also demonstrate proficiency in English, either by passing the English Writing Proficiency exam or equivalent exam or by passing Foreign Language 301 or English 301 or equivalent with a grade of C or better.

Adaptations of certain admission requirements may be made for promising foreign students.

### Study Plan

The study plan consists of 30 units of graduate study (at least 15 in 500-level courses), distributed as follows:

### Core Course (3 units)

French 500 Graduate Seminar: Advanced Structure and Style (3)

Linguistics Seminar (3 units)

French 520 Graduate Seminar: Old French (3)

OR French 530 Graduate Seminar: Historical Linguistics (3)

Literature seminars chosen from the following (9 units):

French 557 Graduate Seminar: French Poetry (3)

French 571 Graduate Seminar: French Prose (3)

French 575 Graduate Seminar: French
Drama (3)

French 576T Graduate Seminar: Major
Writers (3)

French 579 Francophone Literature (3)

Additional electives to be chosen in consultation with the graduate adviser (15 units) (A maximum of six units may be taken, with approval of the adviser, in a related field, at the 300-400- or 500-level.)

French 407 French Film (3)

French 408 Advanced Writing: Syntax and Morphology (3)

French 409 Techniques of French-English Translation (3)

French 435T Topics in French /
Francophone Culture (3)

French 466 Introduction to French Linguistics (3)

French 470 French Literature & Power (3)

French 471 Literature and the Human Psyche (3)

French 472 Philosophical Exploration in Literature (3)

French 475A Exploration of the Self (3)

French 475C The Individual and Society (3)

French 475D Literature and Anti-Literature (3)

French 485 Senior Seminar in French Studies (3)

French 520 Graduate Seminar: Old French (3)

French 530 Graduate Seminar: Historical Linguistics (3)

French 557 Graduate Seminar: French Poetry (3)

French 571 Graduate Seminar: French
Prose (3)

French 575 Graduate Seminar: French Drama (3)

French 576T Graduate Seminar: Major Writers (3)

French 579 Francophone Literature (3)

French 598 Thesis (3-6)

French 599 Independent Graduate

Research (1-3)

In addition, a candidate must complete a: (1) Bibliographic Project, and (2) Reading Project. Final evaluation is by a comprehensive written and oral examination, including advanced competency in the French language. The candidate may, with the approval of the graduate committee, repeat the examination, but once only, within two years.

For further information, consult the Department of Foreign Languages and Literatures.

### **MASTER OF ARTS IN GERMAN**

# Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted. See the section of this catalog on admission of graduates for the complete statement and procedures.

### Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements, may be granted classified graduate standing upon the development of an approved study plan: a major in German consisting of 30 units (or equivalent) of upper-division studies with above-average scholarship. (A candidate presenting a B.A. which has fewer than 30 upper-division units in the language, or whose background is otherwise inadequate, normally will be required to take additional courses to build a full undergraduate major before beginning the graduate program.) The student must also demonstrate proficiency in English, either by passing the English Writing Proficiency exam or equivalent exam or by passing Foreign Language 301 or English 301 or equivalent with a grade of C or better. Adaptations of certain admission requirements may be made for promising foreign students.

### Study Plan

The study plan requires 30 units of graduate study (at least 15 in 500-level courses), distributed as follows:

### Core Courses (6 units)

German 500 Graduate Seminar: Advanced Structure and Style (3)

German 530 Graduate Seminar: Historical Linguistics (3)

Graduate Seminars in Literature (9-12 units)

German 571T\* Graduate Seminar: German Literature (3)

German 576T\* Graduate Seminar: Major Writers (3)

Other Electives (if not taken as an undergraduate) (12-15 units)

German 430 German Literature and Culture to the Baroque (3)

German 440 18th-Century German Literature and Culture (3)

German 450 19th-Century German Literature and Culture (3)

German 460 20th-Century German Literature and Culture (3)

German 482 German Literature and Culture in Film (3)

German 485T\* Senior Seminar in German Literature (3)

German 499 Independent Study (1-3)

German 598 Thesis (3-6)

German 599 Independent Graduate Research (1-3)

\*Variable topic course may be taken again for credit.

With the approval of the graduate committee, a student may substitute a thesis for some of the units required under "Other Electives." A reading list must be completed by all students. Final evaluation is by a comprehensive written and oral examination, including advanced competency in the German language. The candidate may, with the approval of the graduate committee, repeat the examination, but once only, within two years.

For further information, consult the Department of Foreign Languages and Literatures.

### MASTER OF ARTS IN SPANISH

### Admission to Graduate Standing: Conditionally Classified

University requirements include: A baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted. See the Graduate Admissions section of this catalog for complete statement and procedures. In addition to the university requirements for admission, acceptance into this program is contingent upon the completion of the Graduate Record Examination (GRE) general test.

Candidates will need a B.A. with a minimum GPA of 3.0 in Spanish, consisting of at least 24 units (or equivalent) of upper-division studies. A candidate presenting a bachelor of arts that has fewer than 24 upper-division units in the language, or

whose background is otherwise inadequate, will be required to take additional courses with a minimum GPA of 3.0 to build a full undergraduate major before beginning the graduate program. The student must also demonstrate proficiency in English, either by passing the English Writing Proficiency exam or equivalent exam or by passing Foreign Language 301 or English 301 or equivalent with a grade of C or better.

Satisfactory evaluation of language proficiency by committee is also required.

Adaptations of certain admission requirements may be made for promising foreign students.

### Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing is eligible for classified graduate standing upon the development of an approved study plan, which should be done in consultation with the graduate adviser prior to the completion of nine graduate units.

### Study Plan

The study plan consists of 30 units of graduate study (at least 15 in 500-level courses), distributed as follows:

### Core Courses (6 units)

Graduate Seminars in Linguistics (6 units required)

Spanish 500 Graduate Seminar: Advanced Structure and Style (3)

Spanish 530 Graduate Seminar: Historical Linguistics (3)

### Graduate Seminars in Peninsular Literature (6 units required)

Spanish 556 Grad Seminar: Spanish Poetry (3)

Spanish 571 Grad Seminar: Spanish Prose and Narrative Fiction (3)

Spanish 575 Grad Seminar: Spanish Drama (3)

### Graduate Seminars in Spanish-American Literature (6 units required)

Spanish 557 Grad Seminar: Spanish-American Poetry (3)

Spanish 567 Grad Seminar: Spanish-American Novel (3)

Spanish 576 Grad Seminar: Hispanic Topics (3)

### Other Electives (15 units)

May be chosen from either 400- or 500level courses (up to 6 of the 12 units may be taken, with the approval of the adviser, in a related field):

Spanish 415 Contemporary Spanish Culture (3)

Spanish 416 Contemporary Spanish American Culture (3)

Spanish 430 Spanish Literature to alaubated Neoclassicism (3)

Spanish 441 Spanish-American Literature (3)

Spanish 461 Spanish Literature Since Neoclassicism (3)

Spanish 466 Introduction to Spanish Linguistics (3)

Spanish 467 Dialectology: Current Trends in Modern Spanish (3)

Spanish 468 Spanish-English Contrastive Analysis (3)

Spanish 475T Senior Seminar: Topics in Spanish Peninsular Literature (3)

Spanish 485T Senior Seminar: Topics in Spanish American Literature (3)

Spanish 556 Graduate Seminar: Spanish Poetry (3)

Spanish 557 Graduate Seminar: Spanish American Poetry (3)

Spanish 567 Graduate Seminar: Spanish
American Novel (3)

Spanish 571 Graduate Seminar: Spanish Prose and Narrative Fiction (3)

Spanish 575 Graduate Seminar: Spanish
Drama (3)

Spanish 576 Graduate Seminar: Hispanic Topics (3)

Spanish 598 Thesis (3-6)

Spanish 599 Independent Graduate Research (1-3)

### MASTER OF SCIENCE IN EDUCATION-CONCENTRATION IN TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES

This program is multi-disciplinary, involving study in the fields of English, linguistics, education, anthropology, American studies, speech communication, and psychology in order to provide the candidate with the requisite knowledge for success as an English as a Second Language (ESL) or English as a Foreign Language (EFL) teacher, resource

specialist, or program coordinator. Thirty (30) units are required.

### Admission to Graduate Standing: Conditionally Classified

University requirements include: a baccalaureate degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units attempted (see Graduate Regulations for complete statement and procedures). In addition, the candidate must have a 3.0 grade-point average in the major.

### Prerequisites

- Two years of one foreign language, or one year each of two different foreign languages or the equivalent with an average 3.0 GPA. The requirement will normally be waived for students from foreign countries who have studied English as a foreign language;
- Foreign Language 301 or English 301 and English 303 with a grade of B or better;
- One of the following: English 300, 311, 312, 321, 322 or an equivalent survey of English or American literature with a grade of B or better;
- 4. Linguistics 406 with a grade of B or better;
- 5. Oral and written proficiency in English to be determined at time of application. A minimum TOEFL score of 573 for paper based and 230 for computer based, and a minimum score of 55 on the Test of Spoken English are required for nonnative English speaking applicants who completed their bachelor's degrees outside of the U.S.

### Core Courses (15 units)

Foreign Language Education 443A Principles of Teaching English to Speakers of Other Languages (3)

Foreign Language Education 443B Principles of Teaching English to Speakers of Other Languages (3)

Foreign Language Education 527 Theory of Bilingual Language Acquisition (3)

Foreign Language Education 560 Second Language Assessment (3)

Foreign Language Education 595 Curriculum and Program Design for TESOL (3)

### Electives (12 units required)

Choose courses from at least three of the following four categories (no more than six units may be chosen from 300-level and three units must be from 500-level course):

### Culture

American Studies 301 The American
Character (3)

American Studies 345 The American
Dream (3)

Anthropology 300 Language and Culture (3)

Anthropology 360 Contemporary American Culture (3)

Anthropology 450 Culture and Education (3)

Foreign Language Education 545 Teaching Culture in the Language Classroom (3)

### Linguistics

French, German, Japanese, or Spanish 466 Introduction to French, German, Japanese, or Spanish Linguistics (3)

Foreign Language Education 468 Language Transfer and TESOL (3)

Japanese 468 Japanese-English Contrastive
Analysis (3)

Spanish 468 Spanish-English Contrastive
Analysis (3)

Linguistics 351 Introduction to Linguistic Phonetics and Phonology (3)

Linguistics 412 Sociolinguistics (3)

Linguistics 501 Research Methods and Bibliography (3)

Linguistics 505 Phonological Analysis (3)

Linguistics 507 Grammatical Analysis (3)

Linguistics 508 Theories of Syntax (3)

Linguistics 580T Special Topics in Linguistics (3) (subject to adviser's approval of topics)

Psychology/Linguistics 417
Psycholinguistics (3)

### **English and Speech Communication**

English/Linguistics 305 The English Language in America (3)

English 402/402S Theories of Response in Composition/Tutor Supervision (2/1)

English 440 History of the English Language (3)

A 400-or 500-level English or American Literature or language course (3)

English 590 Writing Theory and Practice (3)

Speech Comm 320 Intercultural Communication (3)

Foreign Language Education 470
Pedagogical Grammar in TESOL (3)

### **Professional Education**

- Ed Admin 510 Research Design and Analysis (3)
- Ed Elem 529 Graduate Studies: Learning
  Theory for Classroom Use (3)
- Ed Elem 530 Graduate Studies in Elementary Education: Second Languages (3)
- Ed Elem 542 Current Issues and Problems in Bilingual-Bicultural Education (3)
- Ed Sec 440C Teaching Content Area Courses to Language Minority Students (3)
- Ed Sec 440D Teaching Strategies in Academic English (3)
- Ed Sec 440M Multicultural Education in Public Schools (3)
- Ed Sec 440R Instruction in Reading for Secondary School Teaching (3)

Psychology 311 Educational Psychology (3)

Reading 514 Linguistics and Reading (3)

Reading 581 Remediation of Reading Difficulties (4)

### Culminating Experience (3 units required)

Foreign Language Education 596 TESOL Practicum (3)

For further information, contact the TESOL graduate program adviser in the Department of Foreign Languages and Literatures.

### **FOREIGN LANGUAGE COURSES**

**196 Student-to-Student Tutorials (1-3)** See index.

### 301 Writing in an Intercultural Context (3)

Prerequisite: Foreign Language 315, 316, or 325 of appropriate language major. Expository writing and research writing related to intercultural themes. This course meets the classroom portion of the upper-division writing requirement for foreign language majors.

### 495 Internship in Foreign Languages (3)

Prerequisites: the 310 and 311 course in the appropriate language and consent of instructor. Supervised field experience in multinational businesses locally or abroad. Daily use of a foreign language on the job and concurrent enrollment in a School of Business internship are required. Credit/No Credit Course.

496 Student-to-Student Tutorials (1-3)
See index.

# FOREIGN LANGUAGE EDUCATION COURSES

**099 Developmental Writing** (Same as English 099)

# 442 Teaching Foreign Languages in the Secondary School (3)

Prerequisites: French, German, Japanese or Spanish 466; and admission to teacher education or consent of instructor. Principles, methods and materials of language learning and teaching. Includes lectures, activities and fieldwork. Required before admission to student teaching. Credit/no credit only.

### 443A Principles of Teaching English to Speakers of Other Languages (3)

Prerequisite: French, German, Japanese or Spanish 466 or Linguistics 406. Overview of theories, methods and procedures for teaching listening and speaking skills to second language learners. Focus on planning and delivery of communicative ESL/EFL lessons. (Same as Linguistics 443A)

### 443B Principles of Teaching English to Speakers of Other Languages (3)

Prerequisite: French, German, Japanese or Spanish 466 or Linguistics 406 and FL-Ed 443A. Overview of theories, methods, and procedures for teaching functional and academic reading and writing skills to second language learners. Emphasis on planning and delivery of process and content-based ESL/EFL lessons. (Same as Linguistics 443B)

### 449E Externship in Secondary Teaching (3)

See description under Department of Secondary Education.

### 449I Internship in Secondary Teaching (10)

See description under Department of Secondary Education.

### 449S Seminar in Secondary Teaching (2)

See description under Department of Secondary Education.

### 468 Language Transfer and TESOL (3)

Prerequisites: junior standing or above, successful completion of French, German, Japanese or Spanish 466 and at least one 400-level Linguistics class. Exploration of the role of transfer in second language discourse, semantics, syntax, phonology, and writing. Applications of contrastive analysis and error analysis to language teaching.

### 470 Pedagogical Grammar in TESOL (3)

Prerequisites: English 303, Linguistics 406, FL-Ed 443A or B. Systemic approach to the theories and practical aspects of teaching grammar to non-native speakers of English within a communicative framework. Emphasis on the ordering, selection, and preparation of appropriate materials and activities. Expands on concepts introduced in FL-Ed 443A/B.

### 527 Theory of Bilingual Language Acquisition (3)

Prerequisites: Spanish, French, Japanese, or German 466 and Spanish 468 or FL-Ed 468 or Linguistics 406 and consent of instructor. Methodology for research in bilingual language acquisition and development; socio-linguistic and psycholinguistic patterns in bilingualism; interactions of language and culture in the language acquisition process.

### 545 Teaching Culture in the Language Classroom (3)

Prerequisite: Foreign Language Education 443A,B or consent of instructor. Provides a framework for teaching culture and value systems in the second language classroom. Emphasis on teaching patterns of culture, methods of cultural comparison, audiovisual materials and textbook evaluation.

### 560 Second Language Assessment (3)

Prerequisite: Foreign Language Education 442 or 443A, B or equivalent. Theories, issues, basic statistical concepts in second language testing and techniques for second language assessment. Practice in analyzing commercial language tests and in constructing tests for classroom use.

# 595 Curriculum and Program Design for TESOL (3)

Prerequisite: Foreign Language Education 443A,B. Approaches for curriculum planning in TESOL. Instruction in needs assessment, goal setting, syllabus design, and program evaluation. Students will produce projects for a specific group and setting.

### 596 TESOL Practicum (3)

Prerequisites: completion of the appropriate program core courses (TESOL Certificate or M.S. Education-TESOL) and consent of instructor or adviser. Teaching English to speakers of other languages at Cal State Fullerton or in local schools. Supervised by instructor and supervisors. Seminar meetings by arrangement. May be repeated for credit.

# 599 Independent Graduate Research (1-3)

Prerequisites: graduate standing and consent of instructor. Supervised research projects in teaching English to speakers of other languages (TESOL). May be repeated for credit.

### **CHINESE COURSES**

### 100 Introduction to Chinese Conversation (3)

Introduction to spoken Mandarin Chinese, with emphasis on vocabulary development, use of common phrases and sentences, and culturally appropriate language at beginning levels. Conducted primarily in Chinese.

### 101 Fundamental Chinese—A (5)

Chinese 101 is designed for non-native speakers of Chinese. Development of listening and reading comprehension and speaking. Introduction of writing and development of cultural awareness to communicate on a basic level. Included is an introduction to Chinese customs, culture and civilization. Conducted primarily in Chinese.

### 102 Fundamental Chinese—B (5)

Prerequisite: Chinese 101 or equivalent. Chinese 102 is designed for non-native speakers of Chinese. Continued development of listening and reading comprehension, speaking and writing to communicate on a basic level. Further study of Chinese customs, culture and civilization. Conducted primarily in Chinese.

### 201 Mandarin Chinese for Chinese Speakers—A (3)

Prerequisites: advanced oral competency, able to read at least 500 characters as an intermediate low reader and consent of the instructor. Intermediate course is based on advanced oral competencies and will develop reading up to 1000 characters. Conducted in Chinese.

### 202 Mandarin Chinese for Chinese Speakers—B (3)

Prerequisites: advanced oral competency, able to read at least 1000 characters and to be intermediate in reading and writing, and the consent of the instructor. Intermediate course is based on advanced oral competencies and will develop reading up to 1500 characters. Conducted in Chinese.

### 299 Directed Study (1-3)

Prerequisite: Chinese 102 or equivalent. Supervised study projects in Chinese language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

### 310 Mandarin Chinese in the Business World (3)

Prerequisite: intermediate competency in reading, writing, and speaking Mandarin Chinese. (Testing may be required.) Designed to give students a working knowledge of oral and written Mandarin Chinese business language. Emphasis on cultural, sociological, and economic contexts of business procedures; business correspondence, conversation between business partners, and the language of advertising. Conducted in Chinese.

### 311 Mandarin Chinese for International Business (3)

Prerequisite: intermediate competency in reading, writing and speaking Mandarin Chinese. (Testing may be required.) Designed to expand studentsi vocabulary, reading comprehension and oral and written analysis of materials dealing with social, economic and political realities in the Chinese-speaking world. Overview of the Chinese economy, major trade relations and business practices. Conducted in Chinese.

### 315 Introduction of Chinese Civilization (3)

Prerequisite: intermediate competency in reading, writing, and speaking Mandarin Chinese. (Testing may be required.) The social, intellectual and artistic heritage of Chinese civilization. Reading and discussion of characteristics of Chinese civilization while strengthening linguistic facility in Mandarin Chinese. Conducted in Chinese.

### 325 Contemporary Chinese Culture (3)

Prerequisite: intermediate competency in reading, writing, and speaking Mandarin Chinese. (Testing may be required.) Reading and discussion to develop understanding of the social, political, economic and intellectual problems, trends and contributions of present-day China while strengthening linguistic facility in Mandarin Chinese.

### FRENCH COURSES

### 101 Fundamental French —A (5)

This first course systematically introduces essentials of the French language: fundamental vocabulary and grammatical structures. Conversational and reading/writing skills are equally stressed, and relevant cultural aspects are considered. Practice in the language laboratory required. Taught in French. (CAN FREN 2)

### 102 Fundamental French —B (5)

Prerequisite: French 101 or equivalent. Continuation of systematic introduction of fundamental vocabulary and grammatical structures. Equal emphasis on speaking and reading/writing skills is maintained, along with considerations of French culture. Practice in the language laboratory is required. Taught in French. (CAN FREN 4; CAN FREN SEQ A = French 101 and 102)

### 203 Intermediate French -A (3)

Prerequisite: French 102 or equivalent.

Intensive practice in conversation and composition involving intermediate-level use of language and further exploration of French culture. Concurrent enrollment in French 213 is recommended. Practice in the language laboratory is required. Taught in French. (CAN FREN 8)

### 204 Intermediate French—B (3)

Prerequisite: French 203 or equivalent. Intensive review of grammatical structures, with a view to developing mastery of conversational and compositional skills at the intermediate level. Concurrent enrollment in French 214 is recommended. Practice in the language laboratory is required. Taught in French. (CAN FREN 10; CAN FREN SEQ B = French 203 and 204)

### 213 Intermediate Diction and Phonetics (2)

Prerequisite: French 102 or equivalent. Analysis of particular problems in pronunciation. Practice in accurate pronunciation of cultural and literary materials. Concurrent enrollment in French 203 is recommended. Taught in French.

# 214 Intermediate Conversation and Composition (2)

Prerequisite: French 203 or equivalent.
Discussion and practice in written expression based on cultural and literary materials.
Concurrent enrollment in French 204 recommended. Taught in French.

# 300 Advanced Oral Expression and Phonetics (3)

Prerequisite: French 204 or equivalent. Development of oral control of the language through discussions, oral presentations and dialogues/debate. and further study of phoentics. Vocabulary development in areas of student concerns. Conducted in French.

# 307 Advanced Composition and Grammar (3)

Prerequisite: French 204 or equivalent. Free oral and written expression. Conducted in French.

# 308 Advanced Composition and Grammar (3)

Prerequisite: French 204 or equivalent.

The control of French as an instrument for free oral and written expression. Conducted in French.

### 310 French in the Business World (3)

Prerequisite: French 204 or consent of instructor. Designed to give students a working knowledge of business language (oral and written) in the French-speaking world. Emphasis on cultural and sociological contexts of business procedures. Analysis of appropriate current periodicals. Conducted in French.

### 311 French for International Business (3)

Prerequisite: French 204 or consent of instructor. Designed to give students experience in reading comprehension and analysis of materials dealing with economic and political realities in the French-speaking world. Analysis of appropriate current periodicals. Conducted in French.

### 315 Origins of Modern France (3)

Prerequisite: French 204 or equivalent. The social, intellectual and artistic origins of French civilization: the medieval world-view transformed by the Renaissance; feudal society becoming the ancient regime. Literary selections will be read in modern French.

### 325 Contemporary French Civilization (3)

Prerequisite: French 204 or equivalent.

Reading and discussion to develop understanding of the social and intellectual problems, trends, and contributions of present-day France. Strengthening facility in the language. Conducted in French.

### 375 Explorations in Literature (3)

Prerequisite: French 204 or equivalent. The nature of human language, the literary creation, reading, and what critics are able to say about literary works. Reading and discussion of some typical, mainly contemporary, texts. Conducted in French.

### 407 French Film (3)

Prerequisite: French 307 or 308 or equivalent. The developing art of the French film, with special emphasis on the many roles of language. Subjects treated include: montage, visual/verbal meaning, literary/cinematic narrative, non-realistic language, read language, non-narrative continuity. Conducted in French.

### 408 Advanced Writing: Syntax and Morphology (3)

Prerequisite: French 307 or 308 or equivalent. Promote mastery of forms and structure of the French language. Analysis and guided composition of various styles of discourse. Detailed study of mood, sequence of tenses, voice, aspects, and nuances of meaning. Conducted in French.

### 409 Techniques of French-English Translation (3)

Prerequisite: French 307 or 308 or equivalent. An overview of theories of translation; examination of several types and examples of translation (technical to literary). Major emphasis on actual translation from English to French and French to English.

### 415 French Classicism (3)

Prerequisites: French 307 and 375. The decisive moment in French experience. Focus on literature of the Classic period (1660-1685), but open at both ends to include the formation and perenniality of French Classicism. Conducted in French.

### 425 French Romanticism (3)

Prerequisites: French 307 and 375. The revolution in feeling and intellect in 19th-century France. The Romantic period (1820-1850). May include material preceding or following those dates. Conducted in French.

### 435T Topics in French/Francophone Culture (3)

Prerequisites: French 307 or 308 and French 325 or equivalent. Examines different "texts" (cinema, the media, internet, literature, art) centered around cultural topics (e.g. "City and Country," "The Outsider"). Provides adequate tools to understand French-speaking culture(s), from recent social issues to classic art and literature. Course may be taken up to three times with a different topic.

### 466 Introduction to French Linguistics (3)

Prerequisite: French 307 or 308.

Analytical procedures of general linguistics applied to French. Structural contrasts between French and English. The application of linguistic analysis to the teaching of modern foreign languages.

### 470 French Literature & Power (3)

Prerequisites: French 307 or 308 and French 375 or equivalent. An exploration of the socio-political dimension of French literature throughout its history. Expressions of alliance with, or resistance to, the established political order will be studied, from the medieval epic through 20th century literary texts. Conducted in French.

### 471 Literature and the Human Psyche (3)

Prerequisites: French 307 or 308 and French 375 or equivalent. A study of psychological explorations in French literature, through texts which provide insights into the human psyche, and shape our notion of the self at different moments of French cultural history. A variety of works will be studied, from the Renaissance through the 20th century. Conducted in French.

# 472 Philosophical Exploration in Literature (3)

Prerequisites: French 307 or 308 and French 375 or equivalent. An exploration of the philosophical dimension of French literature throughout its history. Interrogations about the human condition, and the role and place of human consciousness in the universe, will be our guiding theme, in texts ranging from the Renaissance to the 20th century. Conducted in French.

### 475A,C,D Seminar in 20th-Century French Literature (3,3,3)

Prerequisites: French 307, 315, 375, and 415 or 425. If 415 or 425 has not been completed, one must be taken concurrently. The study of 20th-century French literature organized around four major themes. Conducted in French.

### 475A Exploration of the Self (3)

See prerequisites above. Search for identity and the quest for personal authenticity. The role of the conscious and unconscious mind and of artistic creativity. Proust, Gide, Mauriac, Valery, etc.

### 475C The Individual and Society (3)

See prerequisites above. Attitudes toward personal freedom; the existential sense of responsibility toward one's fellows. Saint-Exupery, Malraux, Sartre, Camus, etc.

### 475D Literature and Anti-Literature (3)

See prerequisites above. In the period since World War II French writers have not only transformed the traditional genres (as in the New Theatre, the New Novel and the New Criticism of the 1950s and 1960s) but have contested the institution of literature itself

### 485 Senior Seminar in French Studies (3)

Prerequisites: French 307, 315, 325, 375, 470, 471, and 472. Students will develop an individualized research project to integrate and expand their knowledge and skills. They will analyze and synthesize, debate, and evaluate their own and other students' projects on social, literary, linguistic, cultural, and/or philosophical issues related to the French-speaking world. May be repeated for credit with different topic.

### 499 Independent Study (1-3)

Supervised projects in French language or literature. Consent of the instructor and department chair required. May be repeated for credit.

### 500 Graduate Seminar: Advanced Structure and Style (3)

Prerequisite: consent of instructor. The course is devoted to (1) a comparative analysis of English and French linguistic structures systematically applied in exercises and translations, and (2) analysis of style in French by distinguishing between niveaux de langue and learning to identify specific styles in a variety of literary and non-literary texts.

Conducted in French.

### 520 Graduate Seminar: Old French (3)

Prerequisite: consent of instructor.

Readings in the medieval literature of northern France. A variety of dialects and centuries. Conducted in French.

# 530 Graduate Seminar: Historical Linguistics (3)

Prerequisite: French 466 or consent of instructor. Some previous study of Latin recommended. Introduction to the principles of historical linguistics. Primary emphasis on the transformation of classical Latin (phonology, morphology, syntax and lexicon) into contemporary French. Conducted in French.

### 557 Graduate Seminar: French Poetry (3)

Prerequisite: consent of instructor. An exploration of poetry of French expression which will focus on specific poets or poetic movements while situating them in their historical context. Various critical strategies may be used to analyze the selected works.

Conducted in French.

### 571 Graduate Seminar: French Prose (3)

Prerequisite: consent of instructor. An exploration of the narrative genre in French which will focus on specific texts or movements while situating them in their historical context. Various critical strategies may be used to analyze these texts. Conducted in French.

### 575 Graduate Seminar: French Drama (3)

Prerequisite: consent of instructor. A chronological overview of French drama. This course also treats, in each period, relationships between society, dramatic and theatrical forms, typical thematic content of plays, and the social role of theatre. Conducted in French.

### 576T Graduate Seminar: Major Writers (3)

Prerequisite: consent of instructor. May be repeated for credit. Conducted in French.

### 579 Francophone Literature (3)

Prerequisite: graduate standing.

Exploration of the francophone literatures
(Quebec, West Indies, Meghreb and black
Africa) since the 1950s. Course will concentrate on linguistic, artistic, and socio-political
issues raised in the literature of these excolonies. Conducted in French.

### 598 Thesis (3-6)

Prerequisite: recommendation of student's graduate committee.

### 599 Independent Graduate Research (1-3)

Prerequisites: fluency in French and consent of instructor. Supervised research projects in French language or literature. May be repeated for credit.

### **GERMAN COURSES**

### 101 Fundamental German - A (5)

Development of listening and reading comprehension, speaking, and cultural awareness to communicate on a basic level. Included is an introduction to customs and culture of German-speaking countries. Conducted primarily in German.

### 102 Fundamental German - B (5)

Prerequisite: German 101 or equivalent. Continued development of listening and reading comprehension, speaking, writing, and cultural awareness to communicate on a basic level. Further study of customs and culture of German-speaking countries. Conducted primarily in German.

### 203 Intermediate German—A (3)

Prerequisite: German 102 or equivalent. Development of listening comprehension and speaking. Emphasis on vocabulary building and developing conversational skills.

Conducted in German. May be taken concurrently with German 204, 213 or 214.

### 204 Intermediate German—B (3)

Prerequisite: German 102 or equivalent. Development of listening and reading comprehension and writing. Emphasis on vocabulary building and developing writing competency. Conducted in German. May be taken concurrently with German 203, 213 or 214.

### 213 Intermediate Reading-A (2)

Prerequisite: German 102 or equivalent. Development of reading comprehension using edited and basic authentic materials. May be taken concurrently with German 203 or 204. Conducted in German.

### 214 Intermediate Reading-B (2)

Prerequisite: German 213 or equivalent. Continued refinement of reading comprehension based on authentic materials. May be taken concurrently with German 203 or 204. Conducted in German.

### 299 Directed Study (1-3)

Prerequisite: Consent of instructor and department chair. Supervised study projects in the German language. May be repeated for credit.

### 300 German Conversation (3)

Prerequisites: German 204 or equivalent and intermediate competency. Open to lower-division students with consent of instructor. Development of oral competencies in the context of students' own or contemporary concerns. Conducted in German.

# 305 Advanced Conversation and Composition (3)

Prerequisites: German 204 or equivalent and intermediate competency. Open to lower-division students with consent of instructor. Free oral and written expression. Conducted in German.

### 310 German in the Business World (3)

Prerequisites: German 203, 204, 213, 214 or equivalent and intermediate competency. Designed to give students a working knowledge of business language in the German-speaking world. Emphasis on business correspondence, conversation between business partners and the language of advertising. Conducted in German.

### 311 German for International Business (3)

Prerequisites: German 203, 204, 213, 214 or equivalent and intermediate competency; German 310 recommended. Emphasis on expanding reading comprehension through authentic texts and on building vocabulary of the German business world and overview of the German economy and business practices. Conducted in German.

# 315 Introduction to German Civilization (3)

Prerequisites: German 204 or equivalent and intermediate competency. Readings and discussions in German literature, arts and institutions to develop insights into German culture. Conducted in German.

### 325 Current Trends in Culture of German-Speaking Peoples (3)

Prerequisites: German 204 or equivalent and intermediate competency. Readings and discussion of German contributions to present-day civilization while strengthening facility with German language. Conducted in German.

### 335 Introduction to Literature (3)

Prerequisites: German 305 and advanced competency. Introduction to the art of literature in a cultural context. Analysis and interpretation of various texts. Conducted in German.

### 399 German Phonetics (3)

Prerequisite: intermediate competency.

Analysis of students' pronunciation and intensive practice of phonetic patterns including intonation. Development of conversational competency. May be repeated for credit; but may count only once toward German major.

# 400 Advanced Conversation Practice and Vocabulary Expansion (3)

Prerequisite: German 305 or consent of instructor. Intensive oral practice with emphasis on vocabulary expansion.

Conducted in German.

### 405 Advanced Writing and Speaking (3)

Prerequisite: German 305 or consent of instructor. Practice in writing on various topics in detail, in expressing hypotheses and presenting arguments or points of view accurately and effectively. Emphasis on development differences of formal and informal style. Conducted in German.

# 412 Advanced German and International Business (3)

Prerequisites: German 310 and 311.

Further development of advanced language competencies related to German economic and cultural issues in a global context.

# 430 German Literature and Culture to the Baroque (3)

Prerequisites: German 305, 315, and 335, or consent of instructor. Masterpieces of German literature from the Hildebrandslied to Der Abenteuerliche Simplicissimus and their relationship to cultural, historical and intellectual developments between ca. 800-1670 A.D. Conducted in German.

# 440 18th-Century German Literature and Culture (3)

Prerequisites: German 305, 315, and 335, or consent of instructor. The principal authors and movements (Enlightenment, Storm and Stress, Classicism, early Romanticism) of the 18th century. Conducted in German.

# 450 19th-Century German Literature and Culture (3)

Prerequisites: German 305, 315, and 335, or consent of instructor. 19th-century German literature from Romanticism to Naturalism. Decisive philosophic, political and economic influences. Conducted in German.

# 460 20th-Century German Literature and Culture (3)

Prerequisites: German 305, 315, and 335, or consent of instructor. Major German prose, drama and poetry of the 20th century. Conducted in German.

### 466 Introduction to German Linguistics (3)

Prerequisite: German 305 or consent of instructor. Analytical procedures of general linguistics as applied to German. Structural contrasts between German and English. The application of linguistic analysis to the teaching of modern foreign languages.

# 482 German Literature and Culture in Film (3)

Prerequisite: advanced standing in literature or consent of instructor. A critical study of literary works and their film adaptations as well as a critical analysis of film as communication. May be repeated for credit with different film syllabus.

### 485T Senior Seminar in German Literature (3)

Prerequisite: senior standing in German.
Research and discussion of a literary movement, a genre or an author. Subject varies and is announced in the class schedule. May be repeated for credit with different topic.
Conducted in German.

### 499 Independent Study (1-3)

Supervised research projects in German language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

# 500 Graduate Seminar: Advanced Structure and Style (3)

Prerequisite: consent of instructor. The course concentrates on a comparative, rhetorical analysis of German and English linguistic structures systematically applied in exercises and translations. It also examines varieties of styles of writing by analyzing literary as well as non-literary texts. Conducted in German.

# 530 Graduate Seminar: Historical Linguistics (3)

Prerequisites: German 466 and consent of instructor. Introduction to the principles of historical linguistics. Primary emphasis on the development of German from Indo-European to contemporary German by examining phonological, morphological and syntactical changes through the centuries. Conducted in German.

### 571T Graduate Seminar: German Literature (3)

Prerequisite: consent of instructor. An exploration of various genres in German which focus on specific texts or movements within a cultural context. May be repeated for credit with a different topic. Conducted in German

### 576T Graduate Seminar: Major Writers (3)

Prerequisite: Consent of instructor. An exploration of major writers and their contributions to German-speaking culture. May be repeated for credit with a different topic.

### 598 Thesis (3-6)

Prerequisite: Recommendation of student's graduate committee.

### 599 Independent Graduate Research (1-3)

Prerequisites: advanced competency and consent of instructor. Supervised research projects in German language or literature.

May be repeated for credit.

### **JAPANESE COURSES**

Note: Japanese 101 is not open to students who have completed two or more years of high school study or one term of college study in Japanese, unless such study was completed three years or more before entering the class. Japanese 102 is not open to students who have completed two or more years of high school study or two terms of college study in Japanese, unless such study was completed three years or more before entering the class.

### 101 Fundamental Japanese—A (5)

Development of listening and reading comprehension, speaking, writing, and cultural awareness to communicate on a basic level. Included is an introduction to Japanese customs, culture, and civilization. (CAN JAPN 2)

### 102 Fundamental Japanese—B (5)

Prerequisite: Japanese 101 or equivalent. Continued development of listening and reading comprehension, speaking, writing, and cultural awareness to communicate on a basic level. Further study of Japanese customs, culture, and civilization. (CAN JAPN 4; CAN JAPN SEQ A = Japanese 101 and 102)

### 203 Intermediate Japanese—A (5)

Prerequisite: Japanese 102 or equivalent. Development of listening and reading comprehension, and oral and written practice in Japanese based on cultural and literary materials. Review of grammar. Conducted in Japanese.

### 204 Intermediate Japanese—B (5)

Prerequisite: Japanese 203 or equivalent. Instruction in reading, writing, speaking and listening in Japanese. Audio-lingual assignments in the language laboratory. Conducted mostly in Japanese.

### 299 Directed Study (1-3)

Prerequisite: Japanese 102 or equivalent. Supervised study projects in Japanese language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

### 305 Advanced Japanese—A (3)

Prerequisite: Japanese 204 or equivalent. Practice in four skills of advanced Japanese emphasizing reading comprehension in the context of contemporary concerns. Conducted in Japanese.

### 306 Advanced Japanese—B (3)

Prerequisite: Japanese 204 or equivalent. Practice in four skills of advanced Japanese emphasizing reading comprehension in the context of contemporary concerns. Conducted in Japanese.

### 307 Advanced Spoken Japanese (3)

Prerequisite: Japanese 204 or equivalent. Emphasis on the spoken aspect of advanced Japanese through dialogues, discussions and oral presentations in the context of contemporary concerns. Conducted in Japanese.

### 308 Advanced Written Japanese (3)

Prerequisite: Japanese 204 or equivalent. Emphasis on the written use of advanced Japanese through expanding knowledge of vocabulary and Kanji. Conducted in Japanese.

### 310 Japanese for Business (3)

Prerequisite: Japanese 204 or consent of instructor. Designed to acquaint the student with the practical vocabulary and structure of business language, as well as the cultural background of business procedures in the Japanese business world. Conducted in Japanese.

### 311 Japanese for International Business (3)

Prerequisite: Japanese 204 or consent of instructor. Acquisition of vocabulary and language structures for Japanese in the international business world and related economic situations. Emphasis on comprehension of business terminology through conversation, reading, and writing. Conducted in Japanese.

# 315 Introduction to Japanese Civilization (3)

Prerequisite: Japanese 204 or equivalent or consent of instructor. Readings and lectures in Japanese literature, arts, and institutions from earliest history to 1868, to develop insights into Japanese culture while strengthening facility in the language. Conducted in Japanese.

### 316 Modern Japan (3)

Prerequisites: Japanese 204 and 315 or consent of instructor. Readings and lectures in Japanese literature, arts, and institutions from 1868 to the present, to develop insights into Japanese culture while strengthening facility in the language. Conducted in Japanese.

### 375 Introduction to Literary Forms (3)

Prerequisite: Japanese 306 or consent of instructor. Introduction to literary forms and concepts of literary techniques. Analysis and interpretation of various texts. Conducted in Japanese.

### 410 Classical Japanese (3)

Prerequisite: Japanese 306 or equivalent. Designed to acquaint the student with classical Japanese grammar in preparation for reading classical Japanese literature. Conducted in Japanese.

# 430 Introduction to Japanese Classic Literature (3)

Prerequisites: Japanese 375 and 410 or consent of instructor. The literary use of language, literary creation, reading, and critical evaluation of literary works. Reading excerpts of major classics with lectures on literary trends of each historical period. Conducted in Japanese.

### 440 Introduction to Modern Japanese Literature (3)

Prerequisite: Japanese 375 or consent of instructor. The literary use of language, literary creation, reading, and critical evaluation of literary works. Reading excerpts of modern Japanese literary works with lectures on different trends of various schools. Conducted in Japanese.

### 466 Introduction to Japanese Linguistics (3)

Prerequisite: Japanese 306 or equivalent. Analytical procedures of general linguistics as applied to phonological, semantic, morphological, syntactic and discourse aspects of Japanese. Conducted in Japanese.

# 468 Japanese-English Contrastive Analysis (3)

Prerequisites: Japanese 306 and 466 (may be taken concurrently) or equivalent.

Contrastive analysis of phonological, lexical, syntactic and discourse aspects of Japanese and English. Conducted in Japanese.

# 485T Senior Seminar: Variable Topics in Japanese (3)

Prerequisites: Japanese 375 and at least one 400-level course in Japanese or consent of instructor. Research and discussion of a cultural, literary or linguistic theme. Subject varies and is announced in the class schedule. May be repeated for credit with a different topic. Conducted in Japanese.

### 499 Independent Study (1-3)

Supervised projects in Japanese language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

### PORTUGUESE COURSES

### 101 Fundamental Portuguese—A (4)

Prerequisite: prior successful study of another Romance language. Development of listening and reading comprehension, speaking, writing, and cultural awareness to communicate on a basic level. Included is an introduction to customs, culture, and civilization of Portuguese-speaking countries.

Conducted in Portuguese.

### 102 Fundamental Portuguese—B (4)

Prerequisite: Portuguese 101 or equivalent. Continued development of listening and reading comprehension, speaking, writing, and cultural awareness to communicate on a basic level. Further study of customs, culture, and civilization of Portuguese-speaking countries. Conducted in Portuguese.

### 310 Portuguese in the Business World (3)

Prerequisites: Portuguese 102 or consent of instructor. Emphasis on practical business-related terminology and on the cultural and socio-political contexts of doing business in Portuguese-speaking countries. Conducted in Portuguese.

# 317 Advanced Conversation and Composition (3)

Prerequisite: Portuguese 102 or equivalent or consent of instructor. Emphasis on free oral and written expression. Conducted in Portuguese.

# 320 Introduction to Luso-Brazilian Culture and Civilization (3)

Prerequisites: Portuguese 310 or 317 or equivalent, reading knowledge of Portuguese or consent of instructor. The main currents of Portuguese culture and civilization and Brazil's intellectual and artistic development from discovery to independence. Conducted in Portuguese.

### 325 Contemporary Brazilian Civilization (3)

Prerequisite: Portuguese 310 or 317 or equivalent. Readings and discussion to develop understanding of the social and intellectual problems, trends, and contributions to Brazil since independence. Present-day Brazil, Conducted in Portuguese.

### 499 Independent Study (1-3)

Supervised projects in Portuguese language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

### **SPANISH COURSES**

Note: Students with previous study of Spanish should seek advice from the Department of Foreign Languages and Literatures (H 835-C) for appropriate placement before enrolling in Spanish language classes.

### 101 Fundamental Spanish—A (5)

Development of listening and reading comprehension, speaking, writing, and cultural awareness to communicate on a basic level. Included is an introduction to customs, culture, and civilization of Spanish-speaking countries. Conducted primarily in Spanish. (CAN SPAN 2)

### 102 Fundamental Spanish—B (5)

Prerequisite: Spanish 101 or equivalent. Continued development of listening and reading comprehension, speaking, writing, and cultural awareness to communicate on a basic level. Included is an introduction to customs, culture, and civilization of Spanish-speaking countries. Conducted primarily in Spanish. (CAN SPAN 4; CAN SPAN SEQ A = Spanish 101 and 102)

# 105 Intensive Review of Fundamental Spanish (5)

Prerequisite: prior experience equivalent to Spanish 101 and 102 or three years of high school Spanish taken two or more years ago. Intensive course to develop listening and reading comprehension, speaking, writing, and cultural awareness necessary to communicate on a basic level. Conducted primarily in Spanish.

### 201 Spanish for Spanish Speakers (3)

Prerequisite: consent of instructor.

Intermediate course designed to strengthen and develop student's existing communicative skills in Spanish. Emphasis on oral expression, vocabulary building, proficient spelling, grammar, reading and composition. Students may not receive credit for both Spanish 201 and 203. Conducted in Spanish.

### 203 Intermediate Spanish—A (3)

Prerequisite: Spanish 102 or equivalent. Development of listening and reading comprehension, speaking and writing Spanish based on cultural and literary materials. Emphasis on oral expression and developing correct pronunciation. Concurrent enrollment in Spanish 213 is recommended. Conducted in Spanish.

### 204 Intermediate Spanish—B (3)

Prerequisite: Spanish 201 or 203 or equivalent. Continued development of listening and reading comprehension, practice in speaking and writing Spanish based on cultural and literary materials. Emphasis on vocabulary building and developing grammatical accuracy. Concurrent enrollment in Spanish 214 is recommended. Conducted in Spanish.

### 213 Intermediate Conversation (3)

Prerequisite: Spanish 102 or 105 or equivalent. Practice in oral expression.

Concurrent enrollment in Spanish 203 is recommended. Not open to students with advanced proficiency in Spanish. Conducted in Spanish.

### 214 Intermediate Composition (3)

Prerequisite: Spanish 201 or 203 or equivalent. Practice in written expression based on cultural and literary materials.

Concurrent enrollment in Spanish 204 is recommended. Conducted in Spanish.

### 299 Directed Study (1-3)

Prerequisite: Spanish 102 or equivalent. Supervised study projects in Spanish language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

### 300 Spanish Conversation (3)

Prerequisite: Spanish 204 or equivalent. To develop oral control of the language in the context of students' own or contemporary concerns. Not open to those with native-like proficiency in Spanish. Conducted in Spanish.

# 301 Advanced Conversation and Composition (3)

Prerequisites: Spanish 204 and 214 or equivalent. Open to lower-division students with consent of instructor. Emphasis on free oral and written expression. Conducted in Spanish.

### 310 Spanish in the Business World (3)

Prerequisites: Spanish 301, ehich may be taken concurrently, and Econ 201 and 202. Practical vocabulary and structure of business language, as well as the cultural background of business procedures in the Hispanic world. No credit toward Spanish major or minor. Conducted in Spanish.

### 311 Spanish for International Business (3)

Prerequisite: Spanish 310 or consent of instructor. Acquisition of vocabulary appropriate to the Hispanic business world and study of its economic institutions. Emphasis on reading comprehension, conversation and composition. No credit toward Spanish major or minor. Conducted in Spanish.

### 315 Introduction to Spanish Civilization (3)

Prerequisite: Spanish 301 or 310, which may be taken concurrently, or equivalent. Readings and discussions in Spanish literature, arts and institutions. Strengthening of facility in the language. Conducted in Spanish.

### 316 Introduction to Spanish-American Civilization (3)

Prerequisite: Spanish 301 or 310, which may be taken concurrently or equivalent.

Readings and discussion in Spanish-American literature, arts and institutions.

Strengthening of facility in the language.

Conducted in Spanish.

### 375 Introduction to Literary Forms (3)

Prerequisite: Spanish 301 or equivalent. Introduction to literary forms and concepts of literary techniques and criticism. Analysis and interpretation of various texts.

Strengthening of students' abilities in reading, language and literary criticism. Conducted in Spanish.

### 400 Advanced Writing (3)

Prerequisite: two of the following: Spanish 315, 316, or 375. Exploration of a topic or theme to develop several language skills, especially writing, to broaden and deepen cultural awareness from a humanistic perspective, and to develop and refine critical, analytical, and creative writing competencies.

# 412 Advanced Spanish for International Business (3)

Prerequisite: Spanish 316 or 416 or consent of instructor. Further development of language skills with emphasis on oral and written skills related to Hispanic economic and cultural issues in a global context.

### 415 Contemporary Spanish Culture (3)

Prerequisite: Spanish 315 or consent of instructor. The cultural-social, economical, political-characteristics of contemporary Spanish life. Conducted in Spanish.

# 416 Contemporary Spanish-American Culture (3)

Prerequisite: Spanish 316 or consent of instructor. The social, economic, artistic, and political aspects of contemporary life in Spanish America. Conducted in Spanish.

### 430 Spanish Literature to Neoclassicism (3)

Prerequisites: Spanish 315 and 375 or consent of instructor. Spanish literature from its beginnings to 1700. Representative works of each genre. Conducted in Spanish.

### 441 Spanish American Literature (3)

Prerequisites: Spanish 316 and 375 or consent of instructor. Spanish American Literature from modernismo to the present. Conducted in Spanish.

### 461 Spanish Literature Since Neoclassicism (3)

Prerequisites: Spanish 315 and 375 or consent of instructor. Representative works of Spanish literature from 1700 to the present. Conducted in Spanish.

### 466 Introduction to Spanish Linguistics (3)

Prerequisite: Spanish 301 or equivalent. The analytical procedures of general linguistics as applied to Spanish. Structural contrasts between Spanish and English. The application of linguistic analysis to the teaching of modern foreign languages. Conducted in Spanish.

### 467 Dialectology: Current Trends in Modern Spanish (3)

Prerequisites: Spanish 301, 400 or equivalent and 466, which may be taken concurrently. The differences in phonology, morphology, syntax and lexicon in linguistic patterns in all Spanish-speaking regions.

# 468 Spanish-English Contrastive Analysis (3)

Prerequisites: Spanish 301, 400 or equivalent, and 466 which may be taken concurrently. Theory and performance techniques for contrasting phonological, grammatical and lexical structures of Spanish and English. Conducted in Spanish.

### 475T Senior Seminar: Topics in Spanish Peninsular Literature (3)

Prerequisites: Spanish 375 or consent of instructor and senior standing in Spanish.

Selected topics of the literature of Spain.

Subject matter will change. May be repeated for credit. Conducted in Spanish.

# 485T Senior Seminar: Topics in Spanish American Literature (3)

Prerequisites: Spanish 375 or consent of instructor and senior standing in Spanish.

Selected topics of the literature of Spanish

America. Subject matter will change. May be repeated for credit. Conducted in Spanish.

### 499 Independent Study (1-3)

Supervised research projects in Spanish language, literature, culture, linguistics, or business to be taken with consent of instructor and department chair. May be repeated for credit.

# 500 Graduate Seminar: Advanced Structure and Style (3)

Prerequisite: Spanish 466 or equivalent. The course focuses on (1) a transformational analysis of Spanish syntactic structures, (2) a classic approach to grammar, and (3) analysis of style in different contemporary writers, following a linguistic approach. The course is complemented with exercises and translations from English to Spanish. Conducted in Spanish.

# 530 Graduate Seminar: Historical Linguistics (3)

Prerequisite: Spanish 466 or equivalent.
Focus on the principles of historical linguistics as seen through the evolution of Classical Latin (phonology, morphology, syntax and lexicon) into contemporary Spanish.

Conducted in Spanish.

### 556 Graduate Seminar: Spanish Poetry (3)

Prerequisite: Spanish 430 or 461 or equivalent. A chronological overview of Peninsular poetry with special attention on specific authors and movements. Conducted in Spanish.

# 557 Graduate Seminar: Spanish-American Poetry (3)

Prerequisite: Spanish 441 or equivalent. A chronological overview of Spanish American poetry from 1888 (Latin American Modernism) to Vanguardist and present day poetry and "Anti-Poetry." Conducted in Spanish.

### 567 Graduate Seminar: Spanish-American Novel (3)

Prerequisite: Spanish 441 or equivalent.

An historical overview of the development of the Spanish American novel from the

Colonial period (picaresque) to the Modern

Experimental Novel. Conducted in Spanish.

### 571 Graduate Seminar: Spanish Prose and Narrative Fiction (3)

Prerequisite: Spanish 430 or 461 or equivalent. An in-depth study of major prose and narrative works from various historical periods of Spanish literature. Conducted in Spanish.

### 575 Graduate Seminar: Spanish Drama (3)

Prerequisite: Spanish 430 or 461 or equivalent. A chronological overview of Peninsular drama with emphasis on major authors and their most representative works. Conducted in Spanish.

# 576T Graduate Seminar: Hispanic Topics (3)

Prerequisite: Spanish 430 or 441 or 461 or equivalent. May be repeated for credit with different subject matter. Topics include:
Contemporary Spanish Culture, Contemporary Spanish American Culture, El Ensayo y La Critica Literaria Hispano-Americana.
Conducted in Spanish.

### 598 Thesis (3-6)

Prerequisite: Recommendation of student's graduate committee.

### 599 Independent Graduate Research (1-3)

Prerequisites: fluency in Spanish and consent of instructor. Supervised research projects in Spanish language or literature.

May be repeated for credit.

# geography

### INTRODUCTION

Geography is the study of the earth as the home of humanity. Geography provides a broad understanding of the processes that unite people, places, and environments. Geographers explore the diverse regions of the contemporary world in pursuit of global understanding. They tie together the study of human spatial organizations and cultural landscapes with an in-depth investigation of the earth's landforms, climates and vegetation. Their methods range from field-

work in foreign areas to advanced information technologies like computerized geographic information systems. Geography graduates find rewarding careers in environmental analysis and planing, business, government agencies and education.

### BACHELOR OF ARTS IN GEOGRAPHY

The major consists of at least 39 units of geography, of which at least 21 units must be in upper-division courses. Students may satisfy some requirements with equivalent course work taken at other institutions. Each course counted toward the major must be completed with a grade of C or higher. Students are encouraged to take additional geography courses beyond the minimum required for the major.



### Career Emphasis

Geography graduates often find employment in such areas as environmental planning and related technical fields. For this reason, an optional upper-division emphasis in environmental analysis is available within the major.

### Major in Geography

The major consists of a total of 39 units of coursework

Lower Division Core (15 units)

Geography 100 Global Geography

Geography 110 Physical Geography

Geography 160 Human Geography

Geography 280A-G Introduction to Geographical Analysis

Geography 281 Map Making with GIS

Environmental Geography (3 units)

Geography 329 Cities and Nature

OR Geography 350 Nature and Society

### **DEPARTMENT CHAIR:**

William Lloyd

### **DEPARTMENT OFFICE:**

Humanities 420A

### **PROGRAMS OFFERED**

Bachelor of Arts in Geography Minor in Geography Master of Arts in Geography

### FACULTY

John Carroll, Wayne Engstrom, Gary Hannes, William Lloyd, Robert Voeks, Barbara Weightman, Robert Young

### **ADVISERS**

Undergraduate: Wayne Engstrom Graduate: Barbara Weightman Human Geography (3 units)

Geography 357 Spatial Behavior

OR Geography 360 Geography of the World Economies

OR Geography 370 Cities and Suburbs

Physical Geography (3 units)

Geography 312 Geomorphology

OR Geography 323 Weather and Climate

OR Geography 325 Natural Vegetation

Regional Geography (3 units)

Geography 332 United States and Canada

OR Geography 333 Latin America

OR Geography 340 Asia

Advanced Geography (6 units)

Six units from courses numbered 400 to

Geography Elective (3 units)

Three units lower or upper division geography not used to satisfy any other requirement.

Upper Division Writing Requirement (3 units)

English 301 Advanced College Writing

OR English 360 Scientific and Technical Writing

### Capstone Requirement

Prior to graduation, each student must demonstrate a critical understanding of the major processes that shape the earth's land-scapes, regions and places, and that influence human interaction with the earth's cultural and physical environments. This requirement will be met through satisfactory completion of one of the following capstone courses:

Geography 422 Regional Climatology

Geography 425 Tropical Rainforests

Geography 426 The Coastal Environment

Geography 475 Interpretation of Urban

Landscapes

Geography 478 Urban Planning Principles

Geography 488 Land Use Analysis

Units earned from the capstone course can be used to satisfy the Advanced Geography or Geography Elective requirements of the Geography Major.

### Emphasis in Environmental Analysis

The emphasis consists of a total of 39 units of course work.

Lower Division Core (15 units)

Geography 100 Global Geography

Geography 110 Physical Geography

Geography 160 Human Geography

Geography 280A-G Introduction to Geographical Analysis

Geography 281 Map Making with GIS

Environmental Geography (3 units)

Geography 350 Nature and Society

Human Geography (3 units)

Geography 357 Spatial Behavior

OR Geography 360 Geography of the World Economies

OR Geography 370 Cities and Suburbs

Physical Geography (6 units)

Geography 329 Cities and Nature

OR Geography 312 Geomorphology

OR Geography 323 Weather and Climate

OR Geography 325 Natural Vegetation

Regional Geography (3 units)

Geography 332 United States and Canada

OR Geography 333 Latin America

OR Geography 340 Asia

Advanced Geography (6 units)

Six units from Geography 422, Geography 425, Geography 426, Geography 482, or Geography 488.

# Upper Division Writing Requirement (3 units)

English 301 Advanced College Writing
OR English 360 Scientific and Technical
Writing

### Capstone Requirement

Prior to graduation, each student must demonstrate a critical understanding of the major processes that shape the earth's land-scapes, regions and place, and that influence human interaction with the earth's cultural and physical environments. This requirement will be met through satisfactory completion of one of the following capstone courses:

Geography 422 Regional Climatology

Geography 425 Tropical Rainforests

Geography 426 The Coastal Environment

Geography 488 Land Use Analysis

Units earned from the capstone course can be used to satisfy the Advanced Geography requirement of the Emphasis in Environmental Analysis.

### MINOR IN GEOGRAPHY

The minor in geography serves students seeking a geographic perspective to complement their major. Interested students should take at least 21 units of geography, including Geography 100 and three units from the following (110, 120, 160, 170, 280 or 281) and a minimum of 12 units of upper-division work. All courses counted toward the minor must be completed with a grade of *C* or higher. Faculty advisers are available to help students structure their minor in geography.

### **MASTER OF ARTS IN GEOGRAPHY**

This program provides advanced study in human and physical geography with an emphasis on theory and research. Graduates are prepared in the application of interpretive and analytical concepts and techniques to a broad spectrum of geographic situations. Such study directly serves those whose careers involve urban, regional, and environmental planning and geographic education. Geographic perspectives and methods are highly applicable to a wide range of careers in business, industry, and government.

### Admission and Conditional Classification

The department requires a grade-point average of at least 3.0 in the last 60 semester units attempted and a 3.0 grade-point average in all geography courses.

Students who have no, or a limited, background in geography will be expected to make up the deficit by taking appropriate course work in consultation with the departmental graduate adviser.

All students are required to demonstrate competency in each of geography's four main subfields: human, physical, regional, and technical. Competency is normally demonstrated by completion of at least 18 units at the upper-division or graduate level with a 3.0 grade-point average.

### Graduate Standing: Classified

After completion of all prerequisites and removal of deficiencies, the student must develop an approved study plan in consultation with a personal faculty adviser and the graduate program adviser in order to be classified.

All students must complete six units of upper-division technical courses. Three units are prerequisite to classified standing. If the remaining three units were not taken as undergraduate work, they may be included in the study plan.

### Study Plan

The study plan consists of 30 units of course work distributed as follows:

### Required Courses

Geography 500 Seminar in Geographic Research (3)

Geography 520 Seminar in Physical
Geography (3)

Geography 550 Seminar in Human Geography (3)

Geography 500-level course (3)

Geography 599 Independent Graduate

Research (3)

### Electives (12-15 units)

Senior-level or graduate course work in geography (15 units unless approved for thesis; may include additional Geography 500-level courses; up to six units from related fields). (12-15)

Thesis or Comprehensive Exam (0-3 units)
Geography 598 Thesis (3) (department approval required)

Students must follow one of two plans: Plan A requiring a comprehensive examination or Plan B requiring a thesis.

Plan A requires the development of a specific field of interest and a written, three-part comprehensive exam testing knowledge in human geography, physical geography, and the studentis specified area of interest. The examination may be repeated only once. Plan B requires the development of a specific field of interest, a written thesis, and a subsequent oral defense.

All students will follow Plan A unless approval for the thesis option is granted. In order to follow Plan B, the thesis option, students must have the written consent of their thesis supervisor and all members of a thesis committee. Permission to write a thesis may be granted only to students who have (1) achieved a 3.25 grade-point average after 15 units of upper-division and graduate course work and (2) demonstrated proficiency in research and writing skills.

For further details or advisement communicate with the graduate program adviser, Department of Geography.

### **GEOGRAPHY COURSES**

### 100 Global Geography (3)

Introduction to worldis geographical regions. Cultural patterns and their evolution in diverse physical environments.

### 110 Physical Geography (3)

Introduction to the major components of the physical environment including landforms, climate, natural yegetation and soils. (CAN GEOG 2)

### 120 Global Environmental Problems (3)

A geographical analysis of the Earth's principal environmental problems. Subjects include population growth, agriculture and pesticides, climate change, forestry and fishing, energy, endangered species, and appropriate development.

### 160 Human Geography (3)

An Introduction to Human Geography. Understanding the regional distribution of language, religion, population, migration and settlement patterns, political organization, technology, methods of livelihood over the earth. (CAN GEOG 4)

### 170 Southern California Metropolis (3)

Geographic variations across Southern California; patterns of urban and suburban growth; interaction between the region's developed and natural environments; comparisons between metropolitan Los Angeles and other great world cities.

### 280A-G Introduction to Geographical Analysis (1)

Prerequisite: minimum of one other core course in geography (i.e., 110 or 160) or consent of instructor. The technical interpretation of physical and human features and activities in the landscape.

### 280A Interpretation of Maps & Aerial Photographs (1)

The uses of maps and aerial photographs in geographic research. Types of data which can be obtained from these sources.

Rudimentary measurement techniques.

### 280C Introduction to Quantitative Methods (1)

Descriptive statistics in geography.

Graphs, functions and equations, logarithms and exponents, and an overview of the linear regression model.

### 280E Library Techniques for A day 1 688 Geographers (1)

Library research for geographic inquiry. And where to find the needed information.

### 280G Analysis of Weather Maps (1)

The use and analysis of weather maps.

### 281 Map Making with Geographic Information Systems (3) (Formerly 381)

The principles and practice of effective map making using computerized geographic information systems technology. (2 hours lecture, 2 hours laboratory)

### 312 Geomorphology (3)

Prerequisite: Geography 110 or Geology 101 or consent of instructor. Landforms and the processes responsible for their evolution.

### 323 Weather and Climate (3)

Prerequisite: Geography 110 or consent of instructor. Atmospheric elements and controls, fronts, severe weather, and climatic classification systems.

### 325 Natural Vegetation (3)

Prerequisite: junior or senior standing. The geography of the globe's natural vegetation associations. Examines the role of plate tectonics, climate, soils, fire and humans as agents of landscape-level vegetation change.

### 329 Cities and Nature (3)

Prerequisite: Geography 110 or consent of instructor. Overview of the impact of urbanization on land forms, climate, vegetation, and animals. Planning implications and case studies.

### 330 California Landscapes (3)

Prerequisite: upper-division standing. The landscapes of California, their environmental characteristics, development patterns and current problems.

### 332 United States and Canada (3)

Prerequisite: upper-division standing. The United States and Canada. The interrelated physical and cultural features that give geographic personality to the regions.

### 333 Latin America (3)

Geographical overview of Mexico, Central America, the Caribbean and South America. Explores the region's physical and cultural landscapes. Emphasis on nature-society problems.

### 336 Europe (3)

Prerequisite: upper-division standing. The basic physical and human lineaments of Europe. The elements that distinguish and give character to its major regional divisions.

### 338 Russia and Its Environs (3)

Prerequisite: upper-division standing. A physical, political and economic geography of Russia and the fourteen other states that have succeeded the Soviet Union.

### 340 Asia (3)

Prerequisite: upper-division standing or consent of instructor. The physical, human and regional geography of Asia from Pakistan and India through Southeast Asia and the Malay Archipelago to China, Japan and Korea.

### 344 Africa (3)

Prerequisite: upper-division standing. The physical, human and regional geography of Africa. Saharan borderlands, East Africa and Southern Africa.

### 350 Nature and Society (3)

Prerequisite: junior or senior standing. An exploration of the interface between human systems and natural systems. The course covers a variety of factors affecting human interaction with the earth, including environmental ethics, public policy and technology.

### 352 The National Parks (3)

The park system and its evolution as related to conservation, preservation, and recreational land use. Cultural heritage and physical environment.

### 357 Spatial Behavior (3)

Prerequisite: junior or senior standing. A geographic approach to perception and behavior in local and global spatial settings.

# 360 Geography of the World's Economies (3)

Geographic perspectives on the global production of goods and services and their distribution to consumers. An exploration of key geographic issues in uneven development, international trade, investment patterns, and the spatial integration of local and regional economies.

### 370 City and Suburbs (3)

Prerequisite: upper-division standing. American metropolitan systems and city-region linkages. Theories and spatial models of social and economic patterns within cities and suburbs; planning implications of these locational patterns.

### 385 Quantitative Geography (3)

Prerequisite: Geography core or consent of instructor. Spatial analysis and geographic application of descriptive and inferential statistics. Use of the electronic computer. (2 hours lecture, 2 hours activity)

### 422 Regional Climatology (3)

Prerequisite: Geography 323 or consent of instructor. Major climatic regions of the world; the physical factors that produce climatic patterns.

### 425 Tropical Rainforests (3)

Prerequisites: Geography 110 and Geography 325 or equivalent.

Discussion/seminar examining the geography, ecology, and human use of tropical rainforests. Focus on the causes and consequences of deforestation, sustainable development, and preservation.

### 426 The Coastal Environment (3)

Prerequisites: Geography 110 and one upper-division physical geography course.

An overview of coastal geomorphology, climatology, and plant geography with an emphasis on Southern California. Human interaction, modification, and management of those systems.

### 475 Interpretation of Urban Landscapes (3)

Prerequisite: Geography 357 or 370. In addition, consent of instructor. A geographic view of the city as a landscape composite of structure, space, place and experience. Emphasis is on the European and North American city.

### 478 Urban Planning Principles (3)

Prerequisite: Geography 370 or Poli Sci 320 or consent of instructor. Seminar/discussion on the conceptual themes and legal foundations of American urban planning. Policy areas associated with urbanization and suburbanization processes: land use, economic development, redevelopment, housing systems, neighborhood dynamics and growth management. (Same as Poli Sci 478)

### 481 Geographic Information Systems: Introduction (3)

Prerequisite: senior or graduate standing. Methods and applications of computerassisted mapping and geographic information systems. Instructional fee. (2 hours discussion, 3 hours lab)

### 482 Environmental Impact Assessment (3)

Prerequisites: Geography 350, 431, 478, or equivalent. Techniques relevant to environmental impact assessment in accord with CEQA (state) and NEPA (federal) regulations. Systematic evaluation of major environmental impact topics. Individual and small team activities.

### 484 Urban Planning Methods (3)

Prerequisite: Geography 478 or Poli Sci 478. Seminar and Practicum on methods in urban planning. Analytical techniques and basic data sources. Population forecasting, housing surveys, economic development, fiscal impacts and area revitalization. Individual and team projects. (Same as PolSc 484)

### 485 Geographic Information Systems: Principles and Applications (3)

Prerequisite: Geography 481 or equivalent. Integrated computer-assisted methods for handling spatial data, including database design, data conversion and updating, information retrieval, analysis, modeling and mapping. Instructional fee.

### 488 Land Use Analysis (3)

Prerequisites: upper-division standing and consent of instructor. Urban and rural land use and settlement; geographic field problems. Application of geographic techniques and tools to local field studies.

### 495 Internship in Applied Geography (1-3)

Prerequisite: senior standing and consent of instructor. Students work specified number of hours in appropriate public or private organizations under the supervision of their staff and as coordinated by departmental faculty. Interns meet with instructor by arrangement. May be repeated for a maximum of three units of credit.

### 499 Independent Study (1-3)

Prerequisite: senior standing. Consent of instructor under whom study will be taken required before enrolling. May be repeated for a maximum of six units of credit.

### 500 Seminar in Geographic Research (3)

Prerequisites: graduate standing and consent of instructor. A required seminar to be taken prior to the development of a thesis.

### 520 Seminar in Physical Geography (3)

Prerequisite: graduate standing or consent of instructor: Research in physical geography: methods and contemporary themes. Case studies in climatology, geomorphology, and plant geography.

### 530T Seminar: Selected Topics in Geography (3)

Prerequisite: graduate standing or consent of instructor. Various topics selected from any of the subfields of geography. The topic chosen and a general outline of the seminar are circulated prior to registration. May be repeated for credit.

### 550 Seminar in Human Geography (3)

Prerequisite: graduate standing or consent of instructor. Survey of methodology and case studies including: experiential environments; rural landscapes; urban, social, and economic structure; Geography and public policy; and Third World development.

### 570 Metropolitan Los Angeles (3)

Prerequisites: Geography 370, 475, or 478 or equivalent. Seminar focusing on the changing spatial structure of metropolitan Los Angeles. Specific topics include economic restructuring, local economic development, the social mosaic, political fragmentation, growth management.

### 575 Landscape Interpretation (3)

Prerequisite: Geography 357 or 475 or equivalent. A humanistic approach to the nature and meaning of landscape.

### 597 Project (3)

Prerequisites: Geography 500 and consent of adviser.

### 598 Thesis (3)

Prerequisites: completion of Geography 500, advancement to candidacy and consent of instructor.

### 599 Independent Graduate Research (1-3)

Open to graduate students by consent of instructor. May be repeated for credit.

# geological sciences

### **DEPARTMENT CHAIR**

John H. Foster

### **DEPARTMENT OFFICE**

McCarthy Hall 263

### **PROGRAMS OFFERED**

Bachelor of Science in Geology

Minor in Geology

Emphasis in Geochemistry under

Master of Science in Chemistry

### **FACULTY**

Gerald Brem, Gaylen R. Carlson, John Cooper, John Foster, Diane Clemens-Knott, Brady Rhodes, Prem Saint

Emeritus Faculty: Neil Maloney, Margaret Woyski

### INTRODUCTION

Geological sciences is the study of the Earth, its physical nature, chemical composition and dynamics, as well as its origin, evolution, present state and future. In addition to the quest for understanding the way the Earth works and its relation to the solar system, geological scientists are involved in the search for energy, mineral and water resources, the evaluation and remediation of environmental hazards, and the prevention and/or prediction of natural disasters such as



earthquakes, volcanic eruptions, landslides, coastal erosion, and floods. About 60% of all geological scientists are employed by private industry, primarily by engineering, environmental, petroleum and mining companies. Others are employed

by government agencies, educational institutions and research centers.

Within the general field of geological sciences the department has six major areas of study: geology, geochemistry (the integration of geology and chemistry), geophysics (the integration of geology and physics), hydrogeology (the integration of geology with fresh water systems), engineering geology (the integration of geology and environmental geology. All are designed to prepare students for (1) graduate studies in the geological sciences, (2) direct employment in industry or government, (3) teaching, and (4) an appreciation and understanding of the earth.

### **Evening Program**

The department offers an evening and weekend program of courses that satisfies requirements for the major with the exception of the field camps. Consult the department for details.

### Internships

The department offers an internship program through Geological Sciences 495. This allows the student to obtain on-the-job experience in the geological sciences. Three units maximum are permitted toward the degree.

### Recommended Program in General Education

The department maintains a list of preferred general education courses. A copy can be obtained by visiting or telephoning the department office.

### **ADVISERS**

Geology students must be advised before or immediately upon entering the major in order to design an efficient course progression that will meet their objectives. While enrolled, students must meet with an adviser each semester prior to registration for the following semester. The adviser will assist in scheduling of courses, selection of courses, and solving problems should any arise. To be advised, students should contact the department office for available advisers. Special

advisers are available for: Geochemistry
Emphasis, M.S. in Chemistry (Gene Hiegel,
Department of Chemistry; Gerald Brem,
Department of Geological Sciences); Earth
Science Education (Gaylen Carlson,
Department of Geological Sciences.

### **BACHELOR OF SCIENCE IN GEOLOGY**

Of the 132 units required for graduation, a minimum of 48 are in geological sciences, 34 to 37 in related fields, 39 in general education courses (other than related fields) and the remaining 8 to 11 undesignated units are selected to meet particular needs of each student. To qualify for the B.S. degree, students must have a C or better in all geological sciences courses taken to meet the 48 unit requirement; students must have a C average in required courses in related fields. A proficiency in a modern foreign language, or a computer language, is recommended for students who plan to continue in graduate school. Proficiency in English composition is required.

# Minimum Course Requirements for the Major

Geol Sciences 101, 101L Physical Geology (3,1)

Geol Sciences 201 Earth History (4)

Geol Sciences 303A Mineralogy and Introduction to Petrology (4)

Geol Sciences 303B Igneous and Metamorphic Petrology (4)

Geol Sciences 321 Sedimentation and Stratigraphy (4)

Geol Sciences 360 Structural Geology (4)

Geol Sciences 380 Geologic Field Techniques (4)

A writing course approved by the Geological Science Department to meet the upper-division writing requirement (3)

Geol Sciences 498 Senior Thesis (1-2)

Geol Sciences 456 Introduction to Applied Geophysics (3)

OR Geol Sciences 406 Geochemistry (3)

Geol Sciences 481A Geology Field Camp I (4)

### Adviser-approved Upper-Division Geol Sciences Electives (8-9 units)

No more than 3 units from any combination of Geol Sciences 493, 495, 496L and 499L can be counted toward meeting this 8-9 unit requirement. (*Note*: Geol Sciences 310, 376 and 420 are not accepted as credit toward meeting requirements for the major.)

# Minimum Requirements in Related Fields (nine courses required, 34-37 units)

Biological Science 101 Elements of Biology (3)

OR 131 Principles of Biology (3)

OR a life science course from another institution that is acceptable to CSUF and that demonstrates treatment of whole-organism biology and concepts of evolution and ecology.

Chemistry 120A and 120B General Chemistry (5,5)

Comp Sci 103 Introduction to Personal Computer Applications (3)

OR Comp Sci 121 Programming Concepts (4)

OR Engineering 205 Digital Computation (3)

OR Geography 481 Automated Cartography (3)

Mathematics 150A and 150B Analytic

Geometry and Calculus (4,4).

Physics 225, 225L Fundamental Physics - Mechanics (3,1)

and either

226, 226L Fundamental

Physics - Electricity and Magnetism (3,1)

or 227, 227L, Fundamental Physics - Waves, Optics and Modern Physics (3,1).

OR

Alternatively, 211, 211L, 212, 212L Elementary Physics (3,1,3,1), with consent of adviser.

One additional semester course selected with approval of adviser from courses such as the following:

Biology 316, 401, 406, 419, 461

Chemistry: 301A, 315, 325, 361A

Computer Science: 203, 241

Engineering: 102, 202, 301, 324, 436, 441

Geography: 312, 481, 485

Mathematics: 250A, 250B, 338

Physics: 226, 226L, 227, 227L, 310, 320, 330

Science- or Engineering-based transferrable extension cetificate courses from other universities.

### Undesignated Units (8-11 units required)

These are to be taken in geological sciences, related fields and/or career-support fields, with adviser approval.

### General Education

(39 units required, other than related fields)
See University catalog and consult your
adviser for proper course selection.

### **MINOR IN GEOLOGICAL SCIENCES**

A minimum of 20 units in geological sciences courses, of which at least 12 must be upper-division and at least 6 of these 12 must be taken in residence, is required for a minor. The courses shall be selected by the student in consultation with an adviser. Prospective teachers should include courses in physical geology, earth history, meteorology, oceanography, mineralogy and petrology. Geological Sciences 140, 310 and 376 are not acceptable as part of the 20 units.

### **EMPHASIS IN GEOCHEMISTRY**

Offered jointly by the Departments of Chemistry and Biochemistry and Geological Sciences. Contact the graduate program adviser in the Department of Chemistry and Biochemistry for further information.

### **CREDENTIAL PROGRAM**

Students should first contact the Department of Secondary Education office, Education Classroom 379 (714-278-3411) to get information on attending the orientation to the Single Subject Credential Program and then consult the department for further program details.

### **GEOLOGICAL SCIENCES COURSES**

For all courses, prerequisites may be waived if the instructor is satisfied that the student is qualified to take the course.

All lower-division (100-200 level) courses are offered each semester. The department plans to offer in 1999-2001 Geological Sciences 303B, 321 and 380 each fall, Geological Sciences 303A, 360, 335, 420 and 481A each spring and the remaining courses on a three- to four-semester rotation. A schedule of projected class offerings is available from the department.

### 101 Physical Geology (3)

Prerequisite: high school chemistry or physics, or equivalent. The physical nature of the planet earth, the genesis of rocks and minerals, erosion processes and their effects.

(101 & 101L=CAN GEOL 2)

### 101H Physical Geology (Honors) (3)

Prerequisite: high school chemistry or physics, or equivalent. The physical nature of the planet earth, the genesis of rocks and minerals, erosion processes and their effects. (Weekend field trips)

### 101L Physical Geology Laboratory (1)

Corequisite: Geological Sciences 101. Laboratory on minerals, rocks, earthquakes, and map and aerial photographic interpretation. (3 hours laboratory or field trip) (101 & 101L=CAN GEOL 2)

# 101LH Physical Geology Laboratory (Honors) (1)

Corequisite: Geological Sciences 101 or 101H. Laboratory on minerals, rocks, earth-quakes, and map and aerial photographic interpretation. (3 hours laboratory and weekend field trips)

### 120 Introduction to Earth Science (3)

The nature of our planet, its place in space, its atmosphere and oceans, its interior, and its changing surface. (1 hour lecture, 4 hours activity per week)

### 120L Earth Science Laboratory (1)

Corequisite: Geological Science 120. Rock and mineral identification, fluvial and marine processes, land-form recognition from topographic maps, geologic maps; air and space photographs. (3 hours laboratory or field trips)

### 140 Earth's Atmosphere (3)

The composition, structure and circulation of the atmosphere; the origins of storms and other weather disturbances.

### 201 Earth History (4)

Prerequisites: Geological Sciences 101, 101L. Evolution of the earth as interpreted from rocks, fossils and geologic structures. Plate tectonics provides a unifying theme for consideration of mountain building, evolution of life and ancient environments. (2 hours lecture, 6 hours laboratory, field trips) (CAN GEOL 4)

### 303A Mineralogy and Introduction to Petrology (4)

Prerequisites: Geological Sciences 101, 101L, Chemistry 120A. Prerequisite or corequisite: Geological Sciences 201.

Crystallography; origin, occurrence, composition and identification of minerals with emphasis on minerals in rocks. (2 hours lecture, 6 hours laboratory, field trips)

### 303B Igneous and Metamorphic Petrology (4)

Prerequisites: Chemistry 120B; Geological Sciences 303A, 380; Computer Science 103. Description, classification, occurrence and origin of igneous and metamorphic rocks. (2 hours lecture, 6 hours laboratory, field trips)

### 310T Topics in California-Related Geology (1-3)

Directed investigations of one aspect of earth science. Alternating topics are: geology of national parks, California geology, ocean off California, California earthquakes, geological hazards of California, and California gems and minerals. May be repeated for credit with a different topic. (3 hours lecture for 5, 10, or 15 weeks, optional field trips)

### 321 Sedimentation and Stratigraphy (4)

Prerequisites: Geological Sciences 201, 303B, 380; Computer Science 103. Textural, mineralogic properties of sediments used in discrimination of depositional conditions, environments, classification of sedimentary rocks, study of stratigraphic patterns. (2 hours lecture, 6 hours laboratory, field trips)

### 322 Principles of Paleontology (3)

Prerequisites: Geological Sciences 201; Biology 101 or 261 or equivalent. The groups of organisms that have left an important fossil record. Taxonomy, morphology and systematics, biostratigraphy, paleoecology, and evolutionary trends. (2 hours lecture, 3 hours laboratory, field trips)

### 333 General Oceanography (3)

Prerequisites: Geological Sciences 101, 101L and upper-division standing. The chemical, physical and geological nature of the oceans. (2 hours lecture, 3 hours laboratory, field trips)

### 335 General Hydrology (3)

Prerequisites: Geological Sciences 101, Mathematics 150A. Nature, occurrence, movement of surface and groundwater. Rainfall/runoff relation, floods, aquifer evaluation, and water quality investigation. (2 hours lecture, 3 hours laboratory, field trips)

### 340 General Meteorology (3)

Prerequisites: Geological Sciences 101; Mathematics 150A; Physics 225, 225L or 211, 211L. Atmospheric processes, composition and structure. Radiation, thermodynamics of moist air, precipitation mechanisms, atmospheric dynamics. Map analysis and use of thermodynamic diagrams. (3 hours lecture)

### 355 Earth's Interior (3)

Prerequisites: Geological Sciences 101; Mathematics 150A; Physics 225A, 225AL or 211A, 211AL; Chemistry 120A or equivalent. Geophysical, geochemical properties of mantle and core. Data collection techniques. Impact of internal processes on crustal/ surface phenomena. (3 hours lecture)

### 360 Structural Geology (4)

Prerequisites: Geological Sciences 380, Mathematics 125, Computer Science 103. Faults, folds, mechanics of rock deformation, and elementary tectonics; solution of problems by geometric, trigonometric and stereographic analysis. (3 hours lecture, 3 hours laboratory, field trips)

### 375 Engineering Geology (3)

Prerequisites: Geological Sciences 380; Mathematics 150A; Physics 225, 225L or 211, 211L. Engineering properties of rocks and soils; exploration techniques; analysis of geological science principles applicable to engineering problems; report preparation and professional responsibility. (2 hours lecture, 3 hours laboratory, field trips)

### 376 Applied Geology (3)

Prerequisites: Mathematics 130, 135 or 150A; Geological Sciences 101 and one semester university-level physics recommended. Geology applied to engineering works. Earth materials, processes; site evaluation techniques; geologic hazard analysis; case histories. (2 hours lecture, 3 hours laboratory, field trips)

### 380 Geologic Field Techniques (4)

Prerequisites: Geological Sciences 201, English 101, trigonometry, Computer Science 103 or equivalent recommended. Brunton compass use, measurement of stratigraphic sections, principles of topographic maps and aerial photographs and use in geologic mapping, geologic map preparation, columnar sections, cross sections and technical reports. (2 hours lecture, 6 hours field, weekends)

#### 404A Optical Mineralogy (3)

Prerequisites: Geological Sciences 303. Principles of optical crystallography. Optical identification of minerals. Examination of rocks in thin section. (1 hour lecture, 6 hours laboratory)

### 404B Petrography (3)

Prerequisites: Geological Sciences 321 and 404A. Composition, occurrence, and origin of igneous, sedimentary, and metamorphic rocks in microscopic study. (1 hour lecture, 6 hours laboratory)

### 406 Geochemistry (3)

Prerequisites: Geological Sciences 303B and 321, Chemistry 120B, Mathematics 150B. Basic chemical and thermodynamic principles applied to the origin and alteration of igneous, sedimentary and metamorphic rocks and economic mineral deposits.

### 420 Earth Science for Science Teachers (4)

Prerequisites: Geological Sciences 101 and 101L plus upper division standing or science teaching credential. Major concepts of the earth sciences with primary emphasis on physical and planetary geology and secondary emphasis on meteorology and oceanography. (3 hours of lecture, 3 hours of laboratory, field trips)

### 423 Advanced Sedimentology and Stratigraphy (3)

Prerequisites: Geological Sciences 303A and 321. Case histories from literature illustrate concepts, methods, and results in sedimentology/stratigraphy analysis. Field and lab work center around student research on actual problems; research to culminate in paper with professional format. (2 hours lecture, 3 hours laboratory, field trips)

### 436 Hydrogeology (3)

Prerequisites: Geological Sciences 335, 360, 456, or equivalent. Occurrence, movement and utilization of groundwater resources; geological, geophysical and hydrological methods for groundwater exploration and development. Well hydraulics and groundwater contamination. (2 hours lecture, 3 hours laboratory, field trips)

### 437 Water Quality Investigations and Control (3)

Prerequisites: Geological Sciences 335, Chemistry 120B. Methods in sampling strategy. Evaluation of chemical data for quantitative interpretation of water quality status and trends, surface and ground water. Techniques for graphic representation, water contamination source identification and control. (2 hours lecture, 3 hours laboratory, field trips)

### 455 Earthquake Seismology (3)

Prerequisites: Geological Sciences 101; Physics 225, 225L or 211, 211L; Mathematics 150A. Seismic waves, their recording and measurement. Estimation of earthquake source strength, location and mechanism. Introduction to seismic risk and strong motion studies. (3 hours lecture, field trips)

### 456 Introduction to Applied Geophysics (3)

Prerequisites: Mathematics 150B; Physics 225, 225L or 211, 211L; Physics 226, 226L or 212, 212L recommended. Seismic refraction, gravity, magnetic and electrical techniques and fundamentals as applied to determination of subsurface structure, groundwater and location of mineral resources. (2 hours lecture, 3 hours laboratory, field trips)

### 460 Regional Tectonics (3)

Prerequisite: Geological Sciences 303B, 360; Geological Sciences 321 as prerequisite or corequisite. Discussion of recent literature on plate tectonics, tectonics of the world's major orogenic belts, and tectonics of California. (3 hours lecture, Spring-recess field trip)

### 470 Environmental Geology & Planning (4)

Prerequisites: Geological Sciences 101, 101L or Geological Sciences 420; upper-division or graduate standing. Geologic processes, hazards, mineral and energy resources and their interaction with planning and environmental regulations. (3 hours lecture, 3 hours lab, field trips)

### 481A Geology Field Camp I (4)

Prerequisites: Geological Sciences 303B, 321, 360, 380, upper-division writing requirement. Geologic field mapping, operating from a field camp under primitive conditions in an area of varying geologic complexity. Field report, map and cross-sections completed during semester following field work. (45 hours a week for three weeks during January, 1 hour lecture)

### 481B Geology Field Camp II (3)

Prerequisites: Geological Sciences 481A or equivalent experience and consent of instructor. Advanced geologic mapping techniques in a variety of geologic settings, operating from a field camp under primitive conditions. Field reports, maps and cross-sections required one week after completion of field work. (45 hours a week for three weeks during summer)

### 481C Hydrology Field Camp (3)

Prerequisites: Geological Sciences 335 and 481A. Geologic mapping and hydrologic mapping and techniques applied to integrated hydrogeologic model for selected areas. Field report(s), map(s), cross-sections required. (45 hours per week for three weeks during summer)

### 493 Directed Studies (1-3)

Prerequisites: upper-division standing and consent of instructor. Directed studies in specialized areas of the geological sciences, such as petroleum geology, sedimentology, optical and instrumentation techniques. Library research and written reports required. May be repeated once with a different topic.

### 495 Geological Sciences Internship (3)

Prerequisite: junior or senior standing in geological sciences. Geological sciences work experience, salaried or volunteer, with industry, government or private agencies. Student intern will be supervised by faculty adviser and employer. (1 hour of seminar plus a total of 120-150 hours of work experience)

### 496L Geological Sciences Tutorial (2)

Prerequisite: 20 units in geological sciences. Supervised experience in geological sciences teaching through tutoring or assisting in laboratory or field classes.

### 498 Senior Thesis (1-2)

Prerequisite: senior standing in geological sciences. Developed as an extension of an advanced course, conducted independently by the student under faculty supervision, culminating in a paper of professional quality. Two units maximum credit permitted.

### 499L Independent Study (1-3)

Independent study of a topic selected in consultation with and completed under the supervision of the instructor. May be repeated for credit.

### 506T Topics in Geochemistry (3)

Prerequisites: Geological Sciences 303B,
Chemistry 120B, Computer Science 103,
consent of instructor. Special topics in geochemistry with emphasis on current investigations, specifically including isotope,
organic, and contaminant. May be repeated
for credit with a different topic.

# gerontology modern on the control of the control o

### INTRODUCTION

Gerontology, the study of aging, is a multidisciplinary field that examines the biological, psychological, social, and health/fitness aspects of the aging process. The unprecedented growth of the older population has created a growing demand for professionals in a variety of fields who understand issues related to the aging process.

The minor in gerontology provides students with knowledge and critical understanding of

the processes of adult development and aging. It helps to prepare students for a variety of career opportunities in business, government, industry, public and private agencies, health and human services, research and education. and entrepreneurial endeavors. Many career options involve working with



healthy and independent older adults, while other positions involve working with older adults who have health problems and other age-related limitations.

### **ADVISEMENT**

Academic and career advisement is provided by the Coordinator of Gerontology Programs and members of the Gerontology Program Council.

Information on job and volunteer opportunities, as well as professional events in gerontology are posted near the Gerontology Program office, Ruby Gerontology Center, Room 8. Students are urged to take advantage of programs available through the Career Development and Counseling Center, Langsdorf Hall 208.

### **RUBY GERONTOLOGY CENTER**

The Charles L. and Rachel E. Ruby Gerontology Center is a center for education and research in gerontology. Students are encouraged to become involved in the research, conferences, and community service activities of the center.

### **GERONTOLOGY AWARD & SCHOLARSHIPS**

The Emeriti Memorial Scholarship in Gerontology has been established to honor a full-time continuing junior, senior, or graduate student with a minor or an emphasis in gerontology.

Criteria include scholastic achievement and professional purpose.

A Gerontology Program Council Award is given to a full-time junior or senior student with a minor in gerontology. Criteria include active membership in the Student Association for Gerontology Education (SAGE), community involvement, and financial need.

The Beverly and Arnold Miller University Scholarship in Gerontology is open to full-time, continuing junior, senior, or graduate students with a declared specialization in older adult health/wellness.

### PROGRAM COORDINATOR:

William Smith

### PROGRAM OFFICE:

Ruby Gerontology Center 8

### PROGRAMS OFFERED

Minor in Gerontology
Professional Certificate in Gerontology
Emphasis in Gerontology within M.A.
Sociology

### PROGRAM COUNCIL

Tony Bell (Sociology) Don Castro (Humanities & Social Sciences) Rosalie Gilford (Sociology) Barbara Haddad (Nursing) Margaret Hamilton (Extended Education) Jessie Jones (Kinesiology and Health Promotion) Mikyong Kim-Goh (Human Services) Robert Koch (Biology) Deborah Newsome (Student Representative) Harry Norman (Extended Education) Kathy O'Byrne (Counseling) Jacob Pandian (Anthroplogy) Roberta Rikli (Kinesiology and Health Promotion)

Dixie Shaw (CLE Representative)
William Smith (Coordinator, Gerontology rograms)

Duana Welch (Psychology)

### STUDENT ACTIVITIES

Students interested in gerontology are encouraged to join the Student Association for Gerontology Education (SAGE).

Opportunities are available to become involved in research, conferences, and community service activities. Students are also encouraged to become active in professional gerontology organizations such as the California Council on Gerontology and Geriatrics (CCGG). Applications are available at the Gerontology Program office, Gerontology Center, Room 8.

#### **MINOR IN GERONTOLOGY**

The gerontology minor consists of 21 units in the following areas:

Lower Division Requirements (3 units)

Sociology 133 Introduction to

Gerontology (3)\*

Upper Division Requirements (9 units from the following)

Sociology 333 Sociology of Aging (3)
Psychology 362 Psychology of Aging (3)\*
Biology 306 Biology of Aging (3)\*
Kinesiology 454 Physical Activity and the

Aging Process (3)

Required Internship (3 units)

One three-unit internship at the 300/400 level in a related field. An internship is a supervised experience working within the community. Internships are coordinated through the student's major department.

Upper-Division Electives (6 units, adviser approved)

Biology 311 Nutrition and Disease (3)\*

Child Development 312 Human Growth and Development (3)\*

English 356 The Literature of Aging (3)\*

Health Sci 342 Stress Management (3)\*

Health Sci 401 Epidemology (3)

Health Sci 450 Applied Health Promotion Throughout the LIfespan (3)

Human Services 380 Theories and Techniques of Counseling (3)\*

Human Services 385 Program Design and Proposal Writing (3)

Human Services 410 Crisis Intervention for Para-Professionals (3)

Human Services 420 Human Services Management (3) Human Services 480 Case Analysis and Intervention Techniques (3)

Kinesiology 353 Physical Activity and Lifelong Well-Being (3)\*

Kinesiology 400 Program Design in Kinesiology and Health Promotion (3)

Management 435 Service Organizations and Operations (3)

Marketing 351 Principles of Marketing (3)

Nursing 301 Promotion of Optimal Health (3)\*

Nursing 302 The Health Delivery System and the Consumer (3)\*

Nursing 303 Women's Health and Healing (3)\*

Nursing 357 Health Promotion: Adult-Aged Nursing (3)

Philosophy 314 Medical Ethics (3)\*

Psychology 302 Learning and Memory (3)

Psychology 303 Sensation and Perception (3)

Psychology 364 Intelligence: A Life-span Perspective (3)

Psychology 474 Health Psychology (3)

Psychology 475 Psychopharmacology (3)

Sociology 361 Population and the Environment (3)\*

Sociology 371 Urban Sociology (3)\*

Sociology 433 Aging and Social Services (3)

Sociology 450 Sociology of Sex Roles (3)\*

Sociology 451 Sociology of the Family (3)\*

Sociology 460 Sociology of Death and Dying (3)\*

Speech Comm 320 Intercultural
Communication (3)\*

Speech Comm 345 Communication and Aging (3)\*

\* Meets General Education requirement.

Additional elective courses are available in selected departments across campus. Such additional electives are chosen in consultation with the major department adviser and with the approval of the Director of Gerontology Programs. Up to nine units of course work may be applied to both the major and gerontology minor.

### Majors That Complement the Minor In Gerontology

The gerontology minor is available and appropriate to strengthen and otherwise complement the course work of students in many majors. Notation of the minor appears on the transcript and the diploma.

### PROFESSIONAL CERTIFICATE IN GERONTOLOGY

Admission to this program requires a bachelor's degree with a minimum gradepoint average of 2.5 in the last 60 semester units. The program requires 18 units total: three units on the social and psychological aspects of aging and 15 units of electives. For further information on specific course content, please contact Margaret Hamilton, Extended Education, (714) 278-1859.

#### **EMPHASIS IN GERONTOLOGY**

An emphasis in gerontology is offered under the Master of Arts in Sociology. Degree requirements are outlined in the Sociology Department section of this catalog.

### PHYSICAL EDUCATION, B.S., M.S.

Students pursuing the B.S. or M.S. in Physical Education may choose a focus area in adult fitness and aging. Requirements are available through the Department of Kinesiology and Health Promotion.

# history

#### INTRODUCTION

Historians engage in systematic study of the human past in order to discover meaning for people in the present. The student of history may draw upon the subject matter and methods of many academic disciplines. Thus, social history employs the methods of the social sciences, including quantitative analysis, in examining social movements and issues in the past; Psychohistory utilizes the approaches of psychology in the study of the behavior of historically

significant individuals and groups; and the development of the various areas of human intellectual and cultural activity, for instance

the arts



and sciences, are studied to inform us of how and why people have thought as they did.

Lower-division survey courses are designed to convey the broad sweep of past human events and introduce the student to the study of causation and historical source materials. Aspects of the philosophy and methodology of history and the mechanics of writing historical essays are addressed in History 300A and 300B. The study, in greater depth, of specialized historical topics comprises the bulk of the upper division offerings of the department. History majors are required to take History 490, a senior seminar on a special topic in which they are expected to write an original historical essay based chiefly upon the analysis of historical materials that date from the time of the events studied.

The history major is useful for students who: (1) seek a broad liberal arts education with the option to choose more specialized study by geographical region, epoch and focus of inquiry (cultural, social, etc.); (2) plan a career in government service, including positions in United States Government agencies and international organizations overseas; (3) in business where writing, research and people skills are important; (4) pursue a career in private, nonprofit organizations that may involve research and service organizations, i.e. archives, museums and libraries; (5) desire to study law; (6) intend to prepare for primary or secondary school teaching, or (7) intend to work for advanced degrees in history in preparation for college teaching. The department is committed to the university's missions and goals—where learning is preeminent.

### Credential Information

Teaching credentials require specific study plans and students are urged to seek advice from an adviser early in their course of study. Majors planning to teach at the secondary level should have a study plan approved by the Undergraduate Coordinator or designee by the first semester of their junior year in residence.

### Oral History

The Oral History Program, under the aegis of the Department of History, is one of the most comprehensive university-based oral history programs in the nation. In addition to offering course work in interviewing techniques, technical processing methodology, and community fieldwork, the program administers an assortment of ethnic, political, and other regional projects.

### **DEPARTMENT CHAIR:**

William W. Haddad

#### VICE CHAIR:

Seymour Scheinberg

#### **DEPARTMENT OFFICE:**

Humanities 815F

#### **PROGRAMS OFFERED**

Bachelor of Arts in History

Minor in History

Master of Arts in History

#### FACULTY

Gordon Bakken, Leland Bellot, Gayle
Brunelle, Donald S. Castro, Jack Crabbs,
Lawrence de Graaf, Jack Elenbaas, Nancy
Fitch, George Giacumakis, William W.
Haddad, Arthur Hansen, B. Carmon Hardy,
Harry Jeffrey, Samuel Kupper, Mougo
Nyaggah, David Pivar, Ronald Rietveld,
Seymour Scheinberg, Gary Shumway,
Roshanna Sylvester, Ernest Toy, David Van
Deventer, Nelson Woodard, James
Woodward, Cecile Zinberg

### **ADVISERS**

General Advisement:

Check with departmental office.

Undergraduate Coordinator:

Gayle Brunelle

Graduate Adviser:

David Van Deventer

Credential Advisers:

Seymour Scheinberg and Nelson Woodard

#### **Pre-Professional Information**

Students intending careers in government service or business should seek counsel from an adviser. Those planning to pursue graduate study in history should consult a faculty member of their choice. Those who expect to attend law school should plan their course of study with Professor Bakken, Bellot, Hardy, or Kupper.

### Prizes and Scholarships

Students should inquire at the Department Office for information regarding departmental prizes and scholarships.

#### **BACHELOR OF ARTS IN HISTORY**

The undergraduate major requires a total of 45 units distributed as follows:

### Introductory Survey Courses (12 units)

World Civilization (6 units)

 History 110A World Civilizations to the 16th Century (3)
 AND History 110B World Civilizations Since the 16th Century (3)

### U.S. History (6 units)

2. History 170A United States to 1877 (3)
AND History 170B United States Since
1877 (3)
OR History 180 Survey of American
History (3)
OR History 190 Survey of American
History with Emphasis on
Ethnic Minorities (3)

### Intermediate Requirements (24 units)

History 300A Historical Thinking (3)
History 300B Historical Writing (3)

At least 6 units in each of the following fields:

- 1. United States History
- 2. European and Ancient Mediterranean History
- 3. Latin American, Asian, African, or Middle Eastern History

### Advanced Requirements (9 units)

Two upper-division history electives
History 490T Senior Research Seminar (3)

### **MINOR IN HISTORY**

The minor in history, undertaken in consultation with a history adviser, should include a concentration in a general field.

 Lower-division course work - 6 or 9 units (including general education) Upper-division course work - 15 or 18 units (including History 300A)

A total of 24 units is required for the minor in history.

To complete 24 units, the student has the option of taking the last three units either in the introductory requirements or the upper-division course work.

### **MASTER OF ARTS IN HISTORY**

The Master of Arts degree in history is designed to provide a course of study for those whose interests are in teaching, business, government service and the professions as well as for personal enrichment. It offers all the basic requirements for those who intend to pursue a doctoral degree upon the completion of their study at California State University, Fullerton.

### Prerequisites

Applicants to the Master's program must first fulfill all requirements for admission to graduate standing in the University. A student must have a baccalaureate degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units and a 3.0 grade-point average in upper division history courses. After fulfilling the university requirements, the applicant's records are sent to the History Department's graduate coordinator for evaluation. Students with deficiencies will be considered for admission only after they have completed courses approved by the coordinator.

### Study Plan

Each student determines his or her study plan with the graduate coordinator and an adviser in the area of specialization before commencing course work. Two plans are offered: Plan I, in which one specific field of interest is developed, requiring a written thesis or project (with an oral examination taken before the final draft); Plan II, in which the student must pass written comprehensive examinations in two of the following fields: (1) American; (2) European; or (3) Latin American, Asian, African, or Middle Eastern areas.

Thirty units of work are required for the master's degree. All students must complete the following courses:

History 503 Theory and History (3)
History 520 Seminar in European History (3)

OR History 570 Seminar in American History (3)

History 521T Directed Readings Seminar— European History (3)

OR History 571T Directed Readings Seminar—American History (3)

In addition, nine more units of 500-level course work must be taken, making a total of 18. The remaining 12 units may be taken in 400-level or graduate courses related to the study plan, at least one of which must be taken in history.

Before advancement to candidacy, a cultural understanding or research skill requirement must be met. This may be fulfilled in a variety of ways: (1) an examination on reading ability in a foreign language, (2) completion of 12 units of comparative studies in other departments appropriate to the student's program, (3) an examination or courses taken in statistics, or (4) courses and certification by the oral history director.

### **EMPHASIS IN PUBLIC HISTORY**

Students seeking admission to the Master of Arts in history with an emphasis in public history must meet the same admission requirements as those entering the regular history program. The degree requirements include 30 units of course work and completion of cultural understanding or skill requirement prior to candidacy.

### Required History Courses (9 units)

History 503 Theory and History (3)
History 506 Seminar in Public History (3)
History 571T Directed Readings Seminar—
American History (3)

### Electives (15 units)

Electives must include six units in adviser-approved content courses, three of which must be in history, and six units from the following applied courses:

History 456 Introduction to Public
History (3)

History 492 Community History (3)

History 493 Oral History (3) and Jahrenbert

History 494 History and Editing (3)

### Culminating Experience (6 units)

History 596 Graduate Internship in History (3)

History 597 History Project (3 or 6)

For further information call the Department of History.

#### HISTORY COURSES

### 110A World Civilizations to the 16th Century (3)

The development of Western and non-Western civilizations from their origins to the 16th century.

### 110B World Civilizations Since the 16th Century (3)

The development of Western and non-Western civilizations from the 16th century to the present. (CAN HIST SEQ C = History 110A and 110B)

### 170A United States to 1877 (3)\*

The political, social, economic and cultural development of the United States to 1877. Old World background, rise of the new nation, sectional problems, the Civil War and Reconstruction. (CAN HIST 8)

### 170B United States Since 1877 (3)\*

U.S. History from the late 19th century to the present. Economic transformation, political reform movements, social, cultural, and intellectual changes, and the role of the United States in world affairs. (CAN HIST 10; CAN HIST SEQ B = History 170A and 170B)

### 180 Survey of American History (3)\*

American history from prehistoric times (before 1492) to the present according to chronological time periods. Basic themes which prevade the entire sweep of the nation's history. Satisfies state requirement in U.S. History. Not available for credit to students who have completed History 190.

### 190 Survey of American History with Emphasis on Ethnic Minorities (3)\*

A survey of American history from prehistoric times (before 1492) to the present with special emphasis on the role of race and ethnicity. (Same as Afro-Ethnic Studies/Chicano Studies 190). Credit will not be given for both History 180 and 190.

### 201 The History of Asian-Americans (3)

This class examines the origins and evolution of Asian American communities and cultures, with an emphasis upon the southern California region, through selected books, oral histories, films, outside speakers, and excursions. (Same as Asian American Studies 201)

### 230 The Ascent of Man (3)

Science and technology in the development of human culture, especially the development of science in western culture since the 17th century. Scientific concepts, their emergence and the social impact of science.

### 300A Historical Thinking (3)

The nature of history, history of historical thought, and history's relationship to the humanities and social sciences. Seminar required of all history majors.

### 300B Historical Writing (3)

Prerequisite: History 300A. Research, writing and library usage (including computer-assisted bibliographic searches) as related to history. Meets the classroom portion of the upper-division writing requirement for history majors. Seminar required of all history majors.

### 302A,B Historical Dimension of Liberal Studies (3,3)

Prerequisite for 302A: Completion of General Education requirement II.A.

Prerequisite for 302B: History 302A. The origins and development of modes of thought and forms of expression in the three core areas of liberal studies, i.e., the natural sciences, the social sciences, and the arts and humanities.

### 311 World War II (3)

A history of World War II: Films, documentaries, lectures and discussion.

### 330 History of Economic Development in the First and Third Worlds (3)

Prerequisite: History 110B. Examines economic development in the first and third worlds. Emphasizes the transition from agrarian to industrial economics, the emergence of modern class systems, and the utilization of women and ethnic minorities in modern and traditional economies.

### 350 History of Latin American Civilization (3)

Prerequisite: completion of General Education requirement II.A: The social, economic, political and cultural evolution of Latin America from the European conquest to the present.

#### 355 History of African Civilization (3)

Examines the social, political, economic and cultural evolution of African civilizations from early times to the present. Credit will not be given for both History 355 and Afro-Ethnic Studies 346.

### 360 Modern Asia: Nationalism and Revolutionary Change (3)

Prerequisite: History 110B. A modular analysis of nationalism, revolution and modernization as drawn from the experiences of the countries of China, Japan, India and Southeast Asia.

### 386A American Social History 1750-1860 (3)

Prerequisite: completion of General Education requirement II.B. A social history of the United States to the Civil War; reform movements, temperance, moral purity, women's rights, anti-slavery, spiritualism and their importance to the formation of a modern society. (Same as American Studies 386A)

### 386B American Social History 1865-1930 (3)

Prerequisite: completion of General Education requirement II.B. A social history of the United States from the Civil War; reform, social organization and values. The women's movement, censorship, divorce, the child and the limits of reform movements in an organizational society. (Same as American Studies 386B)

### 394 The American Civil War (3)

Prerequisite: History 170A or 180 or consent of instructor. A history of the American Civil War. Both contemporary and current analyses of the war will be amplified by the use of films and slides.

### 395 A History of the First World War (3)

Prerequisite: History 110B or consent of instructor. A history of the Great War stressing the military, social, economic and political aspects of the war. Films, documentaries and special lectures.

#### 402 Ancient and Medieval Britain (3)

Prerequisite: History 110A. Britain from 5 B.C. to 1485. The constitutional, institutional and cultural aspects of Roman, Celtic, Anglo-Saxon, Norman and Plantagenet Britain.

### 403 Tudor-Stuart England (3)

Prerequisite: History 110A or 110B.

England from the accession of Henry VII to the Glorious Revolution. The political, institutional, ecclesiastical and cultural aspects of the period of the Tudors and Stuarts.

### 404 History of Modern England and Great Britain (3)

Prerequisite: History 110B. Modern
British history (Glorious Revolution to
present). The achievement of constitutional
monarchy, transition from agrarian to industrial society, establishment of political democracy and the rise and fall of socialism.

### 405 History of the Jews (3)

Prerequisite: completion of General Education requirement II.A. The Jewish people from the biblical period to the present. The literature of each period as well as the relationships which exist between the Jewish communities and the societies in which they exist. (Same as Religious Studies 405)

### 406 The Holocaust (3)

Prerequisite: History 110B, or any modern European upper division course. This course will trace the history and examine the origins, implementation, and results of the European-wide programs of persecution and genocide carried out by Nazi Germany and their collaborators against the Jews during the period 1933-1945. (Same as Comparative Religion 406)

### 408 History of California (3)

Prerequisite: completion of General Education requirement II.B. The political, economic and social history of California from the aboriginal inhabitants to the present; the development of contemporary institutions and the historical background of current issues.

### 409 Cities in European Civilization, 1000-1915 (3)

Prerequisite: History 110A or 110B. This course is designed to offer undergraduate students an opportunity to explore the urban history of Western Europe from the revival of urban life in the High Middle Ages through WWI, with a focus on urban social and cultural evolution.

### 411 World War II Japanese American Evacuation (3)

Prerequisites: Completion of General Education Category III.C.1 and History 170B, 180, or 190. An exploration of the World War II eviction and detention of people of Japanese ancestry in the United States, pivoting on the significance of this experience in the areas of civil and human rights, cross-cultural relations, and international affairs. (Same as Asian Amer 411)

#### 415A Classical Greece (3)

Prerequisite: History 110A or equivalent. The civilization of ancient Greece. The rise and flourishing of the classical city-states; the literary and philosophic contributions to modern civilization.

### 417A Roman Republic (3)

Prerequisite: History 110A or equivalent. Roman social and political institutions under the republic.

### 417B Roman Empire (3)

Prerequisite: History 110A or equivalent. Roman imperial institutions and culture with attention to the rise of Christianity. (Same as Religious Studies 417B)

### 420 The Byzantine Empire (3)

Prerequisite: History 110A or equivalent. The East Roman Empire from Constantine to the Ottoman conquest of 1453. Institutional aspects of Byzantine society: church, state, the economy, law and culture.

### 421A History of the Christian Church to 1025 (3)

Prerequisite: History 110A or equivalent. The Christian Church from its origins in the apostolic preaching through the Middle Ages in both the East and West. (Same as Religious Studies 421A)

### 421B History of the Christian Church from 1025 to the Present (3)

Prerequisite: History 110B or equivalent. The western church as an institution from 1025 to the present. Orthodoxy, Catholicism and Protestantism in historical perspective. (Same as Religious Studies 421B)

#### 423 Medieval History, 300-1350 (3)

Prerequisite: History 110A or equivalent. Medieval civilizations —East European, West European, and Islamic—from the decline of the Roman Empire to the beginning of the Hundred Year's War, with emphasis on cultural, intellectual, and social history.

### 424 Gender and Sexuality in Modern European History (3)

Prerequisite: History 110B. Gender and sexuality in European history since the 16th century. Course examines historical forces that shaped masculinity and femininity in past societies.

### 425A The Renaissance (3)

Prerequisite: completion of General Education requirement II.A. Europe in the 14th and 15th centuries: the development of humanism and capitalism in Italy and their impact on European culture, the rise of Renaissance monarchies, the Renaissance papacy, Christian humanism and Renaissance science and mysticism.

### 425B The Reformation (3)

Prerequisite: completion of General Education requirement II.A. Europe in the 16th and 17th centuries: the impact of the Protestant and Catholic Reformations on European culture, the religious wars, the price revolution and the crises of the nobility, the rise of absolutism and the early modern family. (Same as Religious Studies 425B)

#### 427 Enlightenment and Revolution (3)

Prerequisites: History 110A-B. The impact of slavery in the French Caribbean, the rise of nation states, the emergence of Enlightenment thought, feminism, and popular politics during the eighteenth century and the French Revolution.

### 428 The Rise and Decline of Liberal Europe in the 19th Century (3)

Prerequisites: History 110A-B. The impact of industrialization, liberal political reform, and new forms of consumption and production on the daily lives of men and women who lived in nineteenth century Europe. Socialist, nationalist, and feminist responses to social change.

### 429A Europe 1890-1945 (3)

Prerequisite: History 110B. A survey of the cultural, political, and economic history of Europe, 1890-1945.

### 429B Europe Since 1945 (3)

Prerequisite: History 110B. A survey of the cultural, political, and economic history of Europe since 1945.

### 430 History of Science: Copernicus to the Present (3)

Prerequisites: completion of General Education requirement III.A.1 and III.A.2. Science from the 16th century to the present especially the scientific revolutions of the 17th and 20th centuries and the interaction between science, technology and culture.

### 432 From Bismarck to Hitler: Modern Germany, 1870-1945 (3)

Prerequisite: History 110B. This course will both survey the social and political history of Germany from 1871 through World War II and introduce students to current historiographical debates in modern German history.

### 434A Russia to 1890 (3)

Prerequisite: completion of General Education requirement II.A. The establishment of the Russian state at Kiev through the great reforms, the revolutionary movement and reaction of the 19th century. The shaping of contemporary Russia.

### 434B The Russian Revolutions & the Soviet Regime (3)

Prerequisite: History 110B or equivalent. The 1905 and 1917 revolutions and the subsequent consolidation of power under the Communist regime. The continuity and change in Russian social, political, cultural institutions and foreign policy affected by the impact of Marxist-Leninist-Stalinist ideology.

### 449 Race, Ethnicity and Gender in Latin America: A History (3)

Prerequisite: History 110B. The course examines the issues of race, ethnicity, and gender in Latin America from the 15th century to the present. Emphasis will be on Latin America's two largest countries, Brazil and Mexico.

### 450 African History Since 1935 (3)

Prerequisite: History 110B or equivalent. This course examines the issues of European imperialism, settler cultures, racism and African consciousness, ethnic conflict, gender, nationalist and guerrilla liberation movements, Pan-Africanism, international relations, and society development policies in Africa since 1935. (Same as Afro 450)

### 451 Colonial Period of Latin America (3)

Prerequisite: History 110A or equivalent. Latin America from its pre-Columbian origins to the era of the Wars of Independence. Emphasis on the ethnic, social, and cultural factors which characterized the colonial period.

#### 452 20th-Century Brazil (3)

Prerequisite: History 110B. Social, economic, cultural, and political history of Brazil, with particular emphasis on the post-World War II period.

### 453 History of Mexico (3)

Prerequisite: completion of any course which meets the General Education requirements for either II.A. or II.B. History of Mexico from pre-Columbian times to end of the active stage of the Mexican Revolution in 1933. Special focus on the creation of a Mexican historical identity.

### 454 19th Century Latin America: Era of Nation Building (3)

Prerequisite: History 110B or equivalent. Latin America during the 19th century (1810-1910) with emphasis on cultural and socio-political factors which were important in the creation of Latin American nations. Special focus on development of the Rio de la Plata, the Andean nations, and Mexico.

### 455 Latin America Since 1945 (3)

Prerequisites: completion of History 110A-B or consent of instructor. Focuses on political, economic, cultural and social patterns in key Latin American nations from 1945 to the present.

### 456 Introduction to Public History (3)

Prerequisite: History 180 or its equivalent. Applications of history to activities outside of teaching and academic research. Will introduce archival work, historic preservation, exhibit interpretation, and historical research and writing in business, government and individual consulting.

### 457 West Africa and the African Diaspora (3)

Prerequisite: History 110B or equivalent. This course deals with West African relationships with the African diaspora in the Americas. Examines issues of the origins of political conflict, economic exploitation, racism, gender, revolts, emancipation, Pan-Africanism, and rights of African descendants since the 15th century. (Same as Afro 457)

### 458 Southern Africa in the 20th Century (3)

Prerequisite: History 110B or equivalent.

Twentieth-century developments in the Union (Republic) of South Africa, Central Africa (the Rhodesias and Nyasaland) and the Portuguese colonies; the political, economic and social ramifications of race relations.

### 462A History of China (3)

Prerequisite: History 110A or equivalent. Chinese history from ancient times to the middle of the 17th century; society, thought, economy and political institutions.

### 462B History of China (3)

Prerequisite: History 110B or equivalent. Chinese history from the middle of the 17th century to the 1950s. China's internal developments and foreign intrusion, the rise of modern Chinese nationalism and intellectual developments in the Republican period, and the attempts at modernization and the triumph of communism.

### 462C China Since 1949 (3)

Prerequisite: History 110B or equivalent. History of China from 1949 to the present. The Communist Party, political institutions, ideology, economic modernization and foreign relations of China.

### 463A History of Japan (3)

Prerequisite: completion of the General Education requirement II.A. The social, political, and economic history of Japan until 1868 stressing the Tokugawa era.

### 463B History of Japan (3)

Prerequisite: History 110B or equivalent.

The rise of the modern Japanese state,

Japanese imperialism and the postwar era.

### 464A History of Southeast Asia, 1850-1945 (3)

Prerequisite: History 110B or equivalent. Southeast Asia under the impact of imperialism and the effects of the Pacific War on the European empires.

### 464B History of Contemporary Southeast Asia (3)

Prerequisite: History 110B or equivalent. Southeast Asia since the Pacific War to the present. The problems of the area and American involvement in Southeast Asia.

### 465A History of India (3)

Prerequisite: completion of General Education requirement II.A. Survey of the history of India from ancient times through the arrival of Islam to the decline of the Mughul Empire in 18th century. Political developments, social and religious institutions: Hinduism, Buddhism, Jainism, class, caste, early impact of Europeans. (Same as Religious Studies 465A)

### 465B History of India (3)

Prerequisite: History 110B or equivalent. India from early activities of British in 18th century through Indian Independence in 1948. Political, economic, religious developments: crystallization of British supremacy in South Asia through the Indian Mutiny of 1857; India's struggle for independence; emergence of Gandhi and Nehru. (Same as Religious Studies 465B)

### 466A Islamic Civilization: Arab Era (3)

Prerequisite: History 110A or equivalent. Arab predominance in the Middle East from the rise of Islam to the Mongol invasions of the 13th century. (Same as Religious Studies 466A)

### 466B Islamic Civilization: Imperial Age (3)

Prerequisite: completion of General Education requirement II.A. The Mongol invasions of the Middle East and their effects. The Ottoman Turkish, Safavid Persian and Moghul Empires to 1800. (Same as Religious Studies 466B)

### 467 The Middle East in the 19th Century (3)

Prerequisite: History 110B or equivalent. Western penetration of the Middle East and the reaction to it, modernization, the growth of nationalist movements and revolutionary disturbances ending with World War I.

### 468 Middle East in the 20th Century (3)

Prerequisite: History 110B or equivalent. Social, political and economic changes in the Middle East since World War I. The period after World War II and recent independence movements.

### 469 American Military History (3)

Prerequisite: History 180 or equivalent. A survey of America's military experience focusing upon the democratic, industrial, managerial, mechanical, scientific, and social revolutions that have molded military institutions and national policies.

### 470 American Colonial Civilization (3)

Prerequisite: History 170A or 180 or consent of instructor. Analyzes the creation and development of societies in English North America from 1492-1754; the emergence of economic, social and political patterns and structures in a maturing Anglo-American culture.

### 471 The United States from Colony to Nation (3)

Prerequisite: History 170A or 180 or consent of instructor. Social, economic, political and intellectual developments in late 18th-century America, the coming of the American Revolution, origins of American nationalism, social structure of the new nation, and formation and ratification of the Constitution.

### 472 Jeffersonian Themes in American Society, 1800-1861 (3)

Prerequisite: completion of general education requirements in American History, Institutions and Values. Jeffersonian values and their impact upon the social, political and cultural life of the nation.

### 473 Democracy on Trial, 1845-1877 (3)

Prerequisite: completion of general education section in American History, Institutions and Values. America's "great national crisis" and the impact of slavery, civil war and national reconstruction upon the democratic process of the republic.

### 474 United States, 1876-1920 (3)

Prerequisite: History 170B or 180 or equivalent. Industrialization, urbanization, and immigration. Reconstruction, the New South, and the West. Populist and Progressive reform movements. World War I and the Red Scare.

### 475 United States, 1920-1960 (3)

Prerequisite: History 170B or 180 or equivalent. Major trends and conflicting values in domestic policies, national security policies, the economy, society and culture. Analyses of civil rights, civil liberties, parties and politics. Examination of key historiographic controversies.

### 476 United States Since 1960 (3)

Prerequisite: History 170B or 180 or equivalent. U.S. History from 1960 to present, interrelating foreign and domestic policy, economic, social and cultural trends, a study of U.S. history as it is being formed.

### 477 Women's Image in American Film (3)

Prerequisite: History 180 or 170A,B.

Images, symbols, visual metaphors and myths will be studied as they relate to the image of women. Change in film images will be contrasted with the changing status of women in America.

### 478 The History of Orange County (3)

Prerequisite: History 170B or 180 or equivalent. The history of Orange County.

Stress on the process of urbanization.

### 479 The Urbanization of American Life (3)

Prerequisite: completion of General
Education requirement II.B. Urban life in
America; the colonial town, the western town
and the industrial city.

### 480 Development of American Law (3)

Prerequisite: History 170A or 170B.

American law; contracts, property, commercial law, criminal law, corporations, torts, civil procedure and the legal profession.

### 481 Westward Movement in the United States (3)

Prerequisite: completion of General Education requirement II.B. The expansion of the United States population and sovereignty from the eastern seaboard to the Pacific, colonial times to 1900; regional development during the frontier period.

### 482 Themes in American Thought (3)

Prerequisite: History 170A-B or 180 or 190. An examination of intellectual movements and ideas from the colonial period through the twentieth century. Examples of topics treated are: Puritanism; the Enlightenment influence in America; utopian reform; Darwinism; and Freudian thought.

### 483 American Religious History (3)

Prerequisite: completion of General Education requirement II.B. American religious life and the proliferation of religious organizations as the result of the transplanting of the European religious heritage in a new environment. (Same as Religious Studies 483)

### 484 American Legal and Constitutional History (3)

Prerequisite: completion of General Education requirement II.B. Examination of legal and constitutional issues affecting the development of the U.S. Constitution, American law and government. The course will survey developments from English and colonial legal origins to constitutional problems of the post-World War II era.

### 485 United States Foreign Relations (3)

Prerequisite: History 170B or 180 or equivalent. Relations from 1900 to the present. The United States as a world power in the 20th-century; the search for world order and the diplomacy of the atomic age.

### 486 United States Cultural History (3)

Prerequisite: completion of General Education requirement II.B. The social and intellectual development of the United States from the Civil War to the present.

### 487 History of American Parties and Politics (3)

Prerequisite: completion of General Education requirement II.B. Development of American political parties and issues from 1787 to the present. Analyzes the evolution and change in American political parties and the recent impact of mass media upon them.

### 490T Senior Research Seminar (3)

Prerequisites: History 300A and 300B or consent of instructor. Directed research seminar with class discussions applied to specific topics and areas as schedule and staff allow. Original research and writing. Required of all history majors.

### 491T Proseminar in Special Topics in History (3)

Prerequisite: History 300A and 300B or consent of instructor. Intensive study of selected phases or periods of history.

### 492 Community History (3)

Prerequisite: completion of General Education requirement II.B. Historical development of communities in general including the Orange County area. Techniques of gathering and processing local historical data, including oral interviews and other archival materials.

### 493 Oral History (3)

Prerequisite: completion of General Education requirement II.B. The utilization of tape recorded interviews to document significant events in 20th-century history. Training will be given in interviewing techniques, specific background research and equipment use, after which students conduct a number of tape recorded interviews.

### 494 History and Editing (3)

Prerequisite: senior standing and consent of instructor. Techniques of editing, book and photo layout, and indexing. Focuses on oral history documents but includes other historical and technical editing.

### 498 History Internship (3)

The internship program offers work experience related to the history academic program or to areas of public and private employment where any liberal arts major is appropriate.

### 499 Independent Study (1-3)

Open to advanced students in history with consent of department chair. May be repeated for credit.

### 503 Theory and History (3)

Prerequisite: History 502 or consent of instructor. Seminar introducing student to philosophical issues in history as a humanistic social science, to epistemological considerations of the relationship of history to other disciplines, and to new subdisciplines in history. Required for the M.A.

### 506 Seminar in Public History (3)

Prerequisite: consent of instructor.

Seminar in sources, themes, writing and formats used by historians working outside the classroom. Content will vary with instructor and will emphasize application of historical methods to various sectors of community history. Alternative to History 570/520 requirement for M.A. Required for M.A. students pursuing the Public History Emphasis.

### 520 Seminar in European History (3)

Prerequisite: History 503 or equivalent. A seminar in which students will utilize primary sources in writing research papers in European History. May be repeated once for credit when covering a different subfield.

### 521T Directed Readings Seminar in Fields of European History (3)

Prerequisite: a three-unit upper-division course in the sub-field of the offering or its equivalent. A critical examination of the literature that has been important in different fields of European history. May be repeated for credit when covering a different subfield.

### 570 Seminar in American History (3)

Prerequisite: History 503 or equivalent. A seminar in which students will utilize primary sources in writing research papers in American History. May be repeated once for credit when covering a different subfield.

### 571T Directed Readings Seminar in Fields of American History (3)

Prerequisite: a three-unit upper-division course in the sub-field of the offering or permission of instructor. A critical examination of literature that has been important or influential in specific fields of American history. May be repeated for credit when covering a different subfield.

### 596 Graduate Internship in History (3)

Prerequisite: classified graduate status. Professional-level internship in historical work. Usually precedes History 597, Project, and constitutes research phase of main graduate exercise as well as preparation for postgraduate career. This course may be repeated for credit.

### 597 History Project (3 or 6)

The editing of a significant body of primary source materials, including a critical and interpretive introduction as well as appropriate reference and explanatory notes. Foreign sources will normally be translated into English.

### 598 Thesis (3 or 6)

Prerequisite: consent of instructor. May be repeated for credit.

### 599 Independent Graduate Research (1-3)

Open to graduate students in history with consent of department chair. May be repeated for credit.

# human services

### DIVISION OF CHILD, FAMILY AND COMMUNITY SERVICES

### **DIVISION CHAIR:**

Judith Ramirez

### DEPARTMENT HEAD:

Mikel Garcia

#### **DEPARTMENT OFFICE:**

Education Classroom 105

### **PROGRAMS OFFERED**

Bachelor of Science in Human Services

Minor in Human Services

#### **FACULTY**

Soraya Coley, Gerald Corey, Mikel Garcia, Kristi Kanel, Mikyong Kim-Goh, J. Michael Russell

### INTRODUCTION

The Bachelor of Science in Human Services is a carefully articulated program providing both the academic and experiential background for the student seeking a career working with people in the varied and expanding field of human services. An application-oriented major, it is based on a synthesis of knowledge from several social sciences, together with methodologies of inter-



vention at the individual, group and community levels. Human services graduates are educated to respond in an informed way to identifiable human service needs in a variety of settings. The program's orientation and its synthesis of knowledge from many background disciplines, as well as

its focus on the development of specific methods and practical skills to apply this knowledge, give it a unique perspective.

The Human Services major is structured around four interrelated components: theoretical foundations/intervention strategies; client population/cultural diversity; research/evaluation; and skills development/field experience.

### **BACHELOR OF SCIENCE IN HUMAN SERVICES**

The requirements for the major consist of 54 units. The required core curriculum consists of 36 units (in the above four areas), plus 18-units of adviser approved courses related to one's anticipated professional specialization.

Majors must achieve a grade of C or better in all courses included in the core curriculum and in the advisement track. It is the student's responsibility to consult an adviser on the human services faculty at least once during each of her/his first two semesters on campus to develop a study plan identifying courses for the advisement track.

Community College Transfer Students: Community college transfer students may apply a maximum of 12 units of course work in human services and related fields towards the total of 54 units. Transfer of any units must be approved by the student's adviser and the department adviser. For transfer students with a certificate in Substance Abuse, up to 18 units of course work in human services may be applied to the total of 54 units.

Courses required for the major total 54 units. The suggested sequence is as follows:

### Required Core Curriculum (36 units)

Theoretical Foundation/Intervention (9 units)

Human Services 201 Introduction to Human Services (3)

Human Services/Counseling 380 Theories and Techniques of Counseling (3)

Human Services 310 Case Management (3)

OR Sociology 305 Techniques of Social Welfare (3)

Client Populations/Cultural Diversity (9 units)

Afro/Human Services 311 Intracultural Socialization Patterns (3)

Child/Adolescent Studies 312 Human Growth and Development (3) OR Psychology 361 Developmental Psychology (3)

Psychology 341 Abnormal Psychology (3) OR Sociology 451 Sociology of the Family (3)

Research/Evaluation (9 units)

Psychology 201 Elementary Statistics (3) OR Sociology 303 Statistics for the Social Sciences (3)

Human Services 385 Program Design and Proposal Writing (3)

Human Services 470 Evaluation of Human Services Programs (3)

Skills Development/Field Experience (9 units)

Human Services 396 Practicum Seminar (2) and Human Services 396L Practicum (1)

Human Services 495 Fieldwork Seminar (2) and Human Services 495L Fieldwork (1)

Human Services 496 Internship Seminar (2) and Human Services 496L Internship (1-3)

Note: The practicum/fieldwork/internship courses (Human Services 396 and 396L, 495 and 495L, and 496 and 496L) must be taken in sequence. Only one fieldwork course may be taken in a given semester.

### Required Advisement Track (18 units)

In addition to the 36-unit core, the human services degree program requires each student to select, in consultation with an adviser, an 18-unit advisement track in the area of her/his anticipated professional specialization. Examples of advisement tracks include: (1) Mental health track (with emphasis in either counseling or social work; and (2) community agency and organizational practice track. Students are expected to consult with an adviser during their first semester in the Human Services Program to develop a study

Note: Human Services 300 Character and Conflict is required in the mental health advisement track and should be taken early in the program.

#### MINOR IN HUMAN SERVICES

The minor in Human Services, consisting of 21 units, may be of interest to students preparing for careers in the helping professions, as well as students with a personal interest in this field. The minor provides a structured selection of courses offered by the Program which can complement other majors and minors by providing practical applications of theory, foundations, selfexploration and supervised fieldwork in a human services setting.

Required Foundation Courses: 9 units

Human Services 201 Introduction to Human Services (3)

Human Services 311 Intracultural Socialization Patterns (3)

Human Services 380 Theories and Techniques of Counseling (3) OR Sociology 305 Techniques of Social Welfare (3)

Electives: Select 3-9 units from the following

Human Services 300 Character and Conflict (3)

Human Services 310 Case Management (3)

Human Services 385 Program Design and Proposal Writing (3)

Human Services 400 Ethical and Professional Issues in Human Services (3)

Human Services 410 Crisis Intervention for Para-Professionals (3)

Human Services 411 Human Services Delivery to Communities (3)

Human Services 415 Treatment Issues in Drug Addiction (3)

Human Services 416 Group Process and Membership (1-3)

Human Services 420 Human Services Management (3)

Human Services 430 Child Abuse and the Human Services (3)

Human Services 450 Theory and Practice of Group Counseling (3)

Human Services 470 Evaluation of Human Services Programs (3)

Human Services 475 Human Services Policy and Practice (3)

Human Services 480 Case Analysis and Intervention Techniques (3) Fieldwork: Select 3-9 units from the following

Human Services 396/396L Practicum Seminar (2)

and Practicum (1)

Human Services 495/495L Fieldwork Seminar (2)

and Fieldwork (1)

Human Services 490 Practicum in Group Leadership (3)

Human Services 496/496L Internship Seminar (2) and Internship (1-3)

### **HUMAN SERVICES COURSES**

### 196 Student-to-Student Tutorial (1-3)

Prerequisite: approval of Department Head. Students gain tutoring experience with peers needing special assistance on a one-toone basis or in small group settings. 1-3 units, credit/no credit only, does not count toward the Human Services major/minor or G.E. requirement.

#### 201 Introduction to Human Services (3)

The origin and scope of human services including theoretical frameworks, the functions and activities of human services organizations, and the roles and related skills of human services workers.

### 300 Character and Conflict (3)

Prerequisite: consent of instructor at first class meeting. An experiential, theme-oriented class exploring life choices in the struggle for personal autonomy. Themes include: body image, sex roles, love, sexuality, intimacy, marriage, loneliness, death, meaning and values. Credit/no credit only.

### 310 Case Management (3)

Prerequisites: Human Services 201, 396, 396L or equivalent. This course examines the principles and critical issues in case management, along with the various models of service delivery. Special attention will be given to the diverse populations utilizing case management systems. Collaborative and interagency services will be examined.

### 311 Intracultural Socialization Patterns (3) (Same as Afro Studies 311)

### 318 Human Services for Immigrants and Refugees (3)

Prerequisite: Human Services 201 or 311. This course provides an overview of U.S. immigration policy for newcomers, examines stressors and cultural influences on coping behaviors, and explores culturally sensitive models of human service delivery with an emphasis on Southeast Asian, Latino, and Soviet immigrants and refugees.

### 380 Theories and Techniques of Counseling (3)

Prerequisite: upper division standing or consent of instructor. Survey of contemporary theories and techniques of counseling. The counseling process, comparison of various theoretical approaches, introduction to professional and ethical issues. (Same as Counseling 380)

### 385 Program Design and Proposal Writing (3)

Prerequisites: Human Services 201; 396 and 396L, or consent of instructor. Techniques of program design, budgeting and staffing of human service programs; proposal writing and fund development methods; survey of needs assessment procedures.

### 396 Practicum Seminar (2)

Prerequisite: Human Services 201 and 380; Sociology 305 or Human Services 310. Corequisite: Human Services 396L. Functions and structure of human services agencies; interrelationships with community services; the role of the human services worker; ethical, legal and professional issues.

### 396L Practicum (1)

Prerequisites: Human Services 201 and 380; Sociology 305 or Human Services 310.

Corequisite: Human Services 396. Field placement in one or more human service agencies for a minimum of eight hours per week. Credit/no credit only.

### 400 Ethical and Professional Issues in Human Services (3)

Prerequisites: Human Services 380; 396 and 396L; or Philosophy 310, or consent of instructor. A survey of ethical, legal and professional issues facing the human services worker. Designed to teach a process of ethical decision-making and to increase awareness of the complexities in practice. (Same as Philosophy 400)

### 410 Crisis Intervention for Para-Professionals (3)

Prerequisite: Human Services 380 or equivalent. Examines the theories and techniques of short-term intervention and subsequent referral procedures. Topics include suicide, battering, AIDS, rape, death, dying and human-induced disasters in the community.

### 411 Human Services Delivery to Communities (3)

Prerequisite: Afro/Human Services 311 or equivalent. This course provides a framework for identifying the human service needs of varied community groups and focuses on the utilization of this knowledge about those groups in order to develop effective service delivery strategies.

### 415 Treatment Issues in Drug Addiction (3)

Prerequisite: Human Services 380 or equivalent. A survey which examines the treatment issues and theoretical models involved in the treatment of drug dependencies. Emphasis is on the specific effects of different drug classifications; understanding drug cultures; women, children and elderly addiction; co-dependency and enabling.

### 416 Group Process and Membership (1)

Prerequisites: Human Services 300 and 380. A didactic and experiential overview of stages of group development, impact of members on group identity, group member and leader issues. Survey of various counseling groups. May be repeated for credit.

### 420 Human Services Management (3)

Prerequisite: Human Services 385. Issues in administration and management of human services in community agencies. Topics include assessing client needs, designing human service delivery systems, program budgeting, marketing strategies, accountability, and improving program management.

### 430 Child Abuse and the Human Services (3)

Prerequisite: Human Services 201 or equivalent. Introduction to types and symptoms of abuse, assessment techniques, legal and ethical issues, family dynamics pertaining to children, adolescents, and adults abused as children. Special topics include networking and referral, utilizing community resources and prevention.

### 450 Theory and Practice of Group Counseling (3)

Prerequisites: Human Services 300 and Human Services 380 and consent of instructor. A critical evaluation of ten contemporary theoretical approaches to group counseling as well as issues in group work. Emphasis is upon applying theories and techniques to actual group situations.

### 470 Evaluation of Human Services Programs (3)

Prerequisites: Human Services 385 and an elementary social science statistics course. Making program objectives measurable; determining appropriate methodology and techniques to evaluate effectiveness, efficiency and process variables; practical problems of program evaluation.

### 475 Human Services Policy and Practice (3)

Prerequisites: advanced standing, Human Services 385. Explores the relationship between policy and practice. Emphasis is on the problem of inequities and inequalities in the distribution of resources through social policies and social welfare programs. Particular attention is paid to how policy impacts service delivery to disenfranchised groups.

### 480 Case Analysis and Intervention Techniques (3)

Prerequisites: Human Services 380, 396 and 396L; Psychology 341. Psychodynamic principles of evaluation, diagnosis and intervention; techniques of counseling appropriate to diverse populations; application of a psychoanalytic perspective to the diagnostic categories of the DSM-IV. (Same as Counseling 480)

### 490 Practicum in Group Leadership (3)

Prerequisites: Human Services 300, 380 and consent of instructor. Supervised experience as a group leader. Approaches and techniques of group leadership. May be used as a substitute for 496/496L. Coordinator approval needed for substitution for 496/496L. May be repeated once for credit.

### 495 Fieldwork Seminar (2)

Prerequisites: Human Services 396 and 396L. Corequisite: Human Services 495L. Classroom analysis of agency experience focusing on skills and techniques of human service workers and organizational analysis.

#### 495L Fieldwork (1)

Prerequisites: Human Services 396 and 396L. Corequisite: Human Services 495. Supervised fieldwork in one or more human service agencies for a minimum of eight hours per week. Credit/no credit only.

### 496 Internship Seminar (2)

Prerequisites: Human Services 495 and 495L and at least two courses in approved specialization. Corequisite: Human Services 496L. Supervised internship in a community service agency in area of specialization. Seminar consists of group supervision and discussion of cases. Credit/No Credit only.

### 496L Internship (1-3)

Prerequisite: Human Services 495 and 495L. Corequisite: Human Services 496. Each unit of credit requires 120 hours of supervised internship experience in one or more human service agencies in one semester, or eight hours weekly for each unit of credit. Credit/No Credit only.

### 499 Independent Study (1-3)

Prerequisites: approval of coordinator, consent of instructor, upper-division status. Individual research project, either library or field, under the direction of a faculty member. May be repeated for credit. Only three units per semester.

# international busines

### **PROGRAM COORDINATOR**

Irene Lange

### **PROGRAM OFFICE**

University Hall 313

### **PROGRAM OFFERED**

Bachelor of Arts in International Business Concentration in International Business (M.B.A.)

#### **PROGRAM COUNCIL**

James Dietz (Economics)

Linda Andersen (Foreign Languages and Literatures)

Betty Chavis (Accounting)

Irene Lange (Marketing)

Laszlo Tihanyi (Management)

Marjorie Tussing (Foreign Languages and Literatures)

Keiji Matsumoto (Foreign Languages and Literatures)

### INTRODUCTION

The international business curriculum covers the fundamentals of business administration, with an emphasis on international business. Foreign language courses are required and stress the use of the applied language. The program also includes an internship with an international business. This curriculum prepares students for entry level positions. Opportunities exist in contracts, distribution and sales and may lead to general management positions. Since Southern California is a major inter-



national business center, there are career opportunities with internationally oriented firms in this area. Other career opportunities may involve international travel or overseas assignments.

Language concentrations are offered in Chinese, French, German, Japanese, Portuguese, and Spanish. Other concentrations may be developed in the future. The program is offered jointly by the School of Business Administration and Economics and the Department of Foreign Languages and Literatures.

### Scholarship In International

International Marketing Association Scholarship

### **ADVISERS**

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements, registration and grading procedures, residence and similar academic matters. Additional advising on curriculum content and career opportunities is available from the International Business Program:

International Business	Irene Lange
Chinese	Leon Gilbert
French	Linda Andersen
German	Marjorie Tussing
Japanese	Keiji Matsumoto
Portuguese	Ronald Harmon
Spanish	Josefina Hess

### PREPARATION FOR THE MAJOR

Students who expect to complete this program in the usual four-year period should realize that the total requirements, including general education courses and prerequisites, can exceed 124 semester units. Intermediate level competency in a foreign language, equivalent to courses numbered 204 in the Department of Foreign Languages and Literatures, is prerequisite to the required concentration courses. It is therefore strongly recommended that students complete a minimum of three years of foreign language study while in high school. Similarly, algebra and geometry are necessary for many required business courses. The equivalent of three years of high school mathematics, including a second course in algebra, is the prerequisite for the required Mathematics 135, Business Calculus. Students without the necessary background will need to enroll in Mathematics 115, College Algebra.

### BACHELOR OF ARTS IN INTERNATIONAL BUSINESS

Admission to the International Business major involves two steps. Students who apply to the major are initially classified as pre-international business. After completing the lower-division core requirements with grades of at least *C*, and demonstrating satisfactory progress toward intermediate competency in a foreign language, students may apply to the international business major. Pre-international business students may take lower-division business courses, but most upper-division courses are not open to pre-international business students.

All of the following requirements must be met for the degree. Students must earn a grade of at least C in each course in the major. For assistance in interpreting these requirements, contact the Business Advising Center, Langsdorf Hall 700.

### Required Lower-Division Core Courses

Accounting 201A Financial Accounting (3)

Accounting 201B Managerial Accounting (3)

Business Admin 201 Business Writing (3)

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Management 246 Business and Its Legal Environment (3)

Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3)

Math 135 Business Calculus (3)

OR Math 130 A Short Course in Calculus (4)

OR Math 150A Analytic Geometry and Calculus (4)

Intermediate competency in the appropriate foreign language is prerequisite to the required concentration courses. To achieve the required competency level, students should enroll in Chinese, French, German, Japanese, Portuguese, or Spanish courses in consultation with an adviser in the Department of Foreign Languages and Literatures who

will determine student preparation based on prior experience or study.

### Required Upper-Division Core Courses

International business majors shall not enroll in any required upper-division core course until they have completed all of the required lower-division core courses with a grade of at least *C* in each course.

Business Administration 301 Advanced
Business Communication (3)

Economics 335 International Economy (3)

Finance 320 Business Finance (3)

Finance 370 International Business Finance (3)

Management 339 Principles of Management and Operations (3)

Management 340 Organizational Behavior (3)

Manag Sci/Info Sys 361A Quantitative Business Analysis: Probability and Statistics (3)

Marketing 351 Principles of Marketing (3)

Marketing 445 Multinational Marketing Strategies (3)

### Required Capstone Core Course

After completing all lower- and upperdivision core courses, take Management 480 Global Strategic Management (3).

### Collateral Requirement (3 units)

Complete at least one approved collateral elective. It is recommended that students take up to 12 units of electives, if possible. The list of approved courses is available in the Business Advising Center, Langsdorf Hall 700 or the International Business Program Office, University Hall 313.

### Required Concentration

(Choose one concentration from the list below)

#### **CONCENTRATION IN CHINESE**

Chinese 310 Chinese in the Business World (3)

Chinese 311 Chinese for International Business (3)

Chinese 315 Introduction to Chinese Civilization (3)

Chinese 325 Contemporary Chinese Culture (3)

### CONCENTRATION IN FRENCH

French 310 French in the Business World (3)

French 311 French for International Business (3)

French 315 Origins of Modern France (3)

French 325 Contemporary French Civilization (3)

### CONCENTRATION IN GERMAN

German 310 German in the Business World (3)

German 311 German for International Business (3)

German 315 Introduction to German Civilization (3)

German 325 Current Trends in Culture of German-Speaking Peoples (3)

### **CONCENTRATION IN JAPANESE**

Japanese 310 Japanese for Business (3)

Japanese 311 Japanese for International Business (3)

Japanese 315 Introduction to Japanese Civilization (3)

Japanese 316 Modern Japan (3)

### **CONCENTRATION IN PORTUGUESE**

Portuguese 310 Portuguese in the Business World (3)

Portuguese 317 Advanced Conversation and Composition (3)

Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)

Portuguese 325 Contemporary Brazilian Civilization (3)

One of the following courses may be substituted for Portuguese 320 or 325:

Spanish 310 Spanish in the Business World (3)

Spanish 311 Spanish for International Business (3)

### **CONCENTRATION IN SPANISH**

Spanish 310 Spanish in the Business World (3)

Spanish 311 Spanish for International Business (3)

Spanish 315 Introduction to Spanish
Civilization (3)

Spanish 316 Introduction to Spanish-American Civilization (3) *Note:* Students may substitute one of the following for Spanish 315 or 316:

Spanish 415 Contemporary Spanish Culture (3)

Spanish 416 Contemporary Spanish-American Culture (3)

### Internship Requirement

Internships outside the United States: Students who successfully arrange an internship in a country where the language of their concentration is used will enroll for three units in a language internship and for three units in a business internship. During this experience, students are expected to spend a minimum of four months in full-time employment with a faculty-approved firm. Simultaneous enrollment in the two internships is expected and students normally will not engage in any other academic activity.

Internships in the United States: Students who complete internships locally must arrange a business internship that involves international operations. In addition, these students must complete an additional pre-approved three-unit upper-division foreign language course. The course must increase students' understanding of the language and culture of their concentration. If students are expected to use their foreign language on a daily basis as part of their business internship work activity, students may complete a foreign language internship rather than the course. Approval for this option must be obtained prior to enrollment in the business internship and written evidence of language use must be provided at the completion of the language internship.

### Internship Courses

Accounting 495 Internship (3)
Foreign Languages 495 Internship (3)
Economics 495 Internship (3)
Finance 495 Internship (3)
Management 495 Internship (3)
Manag Sci/Info Sys 495 Internship (3)
Marketing 495 Internship (3)

### Other Requirements

Other Subjects: Complete at least 50 percent of the course work for the degree in subjects other than business administration or economics. Complete all university requirements for the bachelor's degree.

Grade Point Average (GPA): Attain at least a 2.0 GPA (C average) in all university

courses and in the concentration courses. Earn at least a C grade in each course required for the major.

Grade Options: Take all required core and concentration courses for a letter grade (A,B,C,D,F). The credit/no credit grading option may not be used for these courses, and a grade of CR (credit) will not satisfy the requirements of the degree. Exceptions: Calculus (Math 130, 135 or 150A) and Internship may be taken under the credit/no credit option, although courses taken to meet general education requirements must be taken for a letter grade.

Residence: At least 12 units of upper-division core courses, 6 units of upper-division concentration courses and 6 units of internships must be taken in residence at CSUE.

### CONCENTRATION IN INTERNATIONAL BUSINESS

See description under M.B.A. programs in the "Business Administration" section of this catalog.

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# on of Kinesiology and Health Promotion is to provide a broad underprograms and health through its degree programs and through the

### INTRODUCTION

The mission of the Division of Kinesiology and Health Promotion is to provide a broad understanding of human motor performance and health through its degree programs and through the scholarship and creativity of its faculty and students. Emphasis is placed on examination of the entire lifespan from infancy to older adult years, with special attention to understanding human movement and health in the context of a diverse and ever-changing society. The Division's degree programs

include foundations courses, essential core courses, and focus areas related to multiple career objectives and subdisciplines within the health and human movement field The cross-disciplinary



focus of the Division's curriculum fosters the development of a diversity of values and skills important to a liberal arts education: critical thinking, leadership, verbal and written communication, technological competency, and performance and wellness assessment.

The Bachelor of Science degree in Kinesiology offers students general studies or a professional focus in areas such as education, sports, therapeutic intervention, and fitness/wellness. The Bachelor of Science degree in Health Science has core requirements focused on health education as well as nine units of elective coursework that allow students to study a related Health Science field. The undergraduate minors in Health Promotion and Kinesiology, also based upon core curricula, provide opportunities for professional and/or personal enhancement. The Master of Science degree in Kinesiology has a required core curriculum, plus individualized courses leading to professional or disciplinary specific preparation.

In addition, select courses within the curriculum service the general education program, various credential programs, and other university degree programs that require human movement or Health Science foundations. Performance courses provide university-wide opportunities for development of skills and knowledge leading to lifelong enjoyment of physical activity, health, well-being and worthy use of leisure time. Internships, practica, independent study, and scholarly outreach provide opportunities for interaction and service within the community.

### STUDENT AWARDS/SCHOLARSHIPS

Awards and scholarships are presented each year to outstanding undergraduate and graduate students. Additional information is available in the Kinesiology and Health Promotion office.

### **ADVISEMENT**

Entering students should contact the appropriate academic coordinator for their major (Kinesiology or Health Science) prior to their first semester at Cal State Fullerton so that they may be assigned to an adviser. Advisers are full-time faculty members with whom students should work continuously in planning each semester, exploring career options, and completing graduation checks.

### DIVISION OF KINESIOLOGY & HEALTH PROMOTION

### **DIVISION CHAIR:**

Roberta Rikli

### **DIVISION OFFICE:**

Physical Education 134

### **PROGRAMS OFFERED**

Bachelor of Science in Kinesiology

Minor in Kinesiology

Athletic Training Education Program

Subject Matter Preparation Program in

Physical Education for the Single

Subject Credential

Master of Science in Kinesiology

Bachelor of Science in Health Science

Minor in Health Science

### **FACULTY**

Gene Adams, C. Ian Bailey, William
Beam, Dapeng Chen, Jill English, C. Jessie
Jones, Robert Kersey, Kathleen Koser, Patricia
Laguna, Julie Max, Guillermo Noffal,
Kenneth Ravizza, Roberta Rikli, Debra Rose,
Clay Sherman, Stephan Walk, Carol
Weinmann, Ronald Witchey

Transfer students and students seeking advisement related to completion of General Education requirements, should visit the Academic Advisement Center located in University Hall 179.

### BACHELOR OF SCIENCE IN KINESIOLOGY

The Division of Kinesiology and Health Promotion offers the Bachelor of Science in Kinesiology for students preparing for a number of career areas, including physical education teaching, exercise and fitness professions, athletic trainers, community service professions, and for post-baccalaureate programs.

The degree consists of 124 units with 48 units required for the major. Each course and prerequisite course required for the major must be completed with a grade of C or higher. All courses counted toward the major must be taken on an Option 1 (letter grade) basis.

Transfer students must request two copies of transcripts of all previous scholastic work from each university or college attended.

These transcripts must be sent by the issuing institution directly to the Office of Admissions. Transfer students should see an adviser immediately regarding transfer credit. For information on general education, consult the Academic Advisement Center, University Hall 179.

### REQUIREMENTS FOR THE MAJOR

### Foundation Courses (12 units)

Kinesiology 260 Movement Anatomy (3)

Kinesiology 302 Perspectives in Kinesiology (3)

Kinesiology 349 Measurement and Statistics in Kinesiology and Health (3)

Kinesiology 364 Motor Development (3)

### Core Courses (24 units)

Kinesiology 300 Principles of Human Movement (3)

Kinesiology 348 Physiology of Exercise (3)

Kinesiology 371 Human Motor Control and Learning (3)

Kinesiology 380 History and Philosophy of Human Movement (3)

Kinesiology 381 Human Movement in Cultural Perspective (3)

Kinesiology 383 Psychology of Sport and Physical Activity (3) Kinesiology 385 Instructional Analysis of Human Movement (3)

Kinesiology 400 Program Design in Kinesiology and Health Promotion (3)

### Electives (12 units)

Upper-division kinesiology elective courses to complete the required 48 units for the major should be selected under advisement. Students generally take elective course work to support an interest in pursuing one of the focus areas which are shown below:

Adult Fitness and Aging

Exercise Physiology/Sports Science

Liberal Arts/Humanities

Athletic Coaching

Sport/Exercise Management

Sport Psychology/Performance Enhancement

Teacher Education

Athletic Training

### Prerequisite Performance Courses (6 units)

A minimum of six courses, one from each of the following areas. Intercollegiate sports course may be applied in the appropriate area. Completion of the six-unit performance requirement is prerequisite to enrollment in Kinesiology 385.

Fitness

Kinesiology 100 Physical Conditioning (1)

Kinesiology 102 Jogging (1)

Kinesiology 103 Fitness Walking (1)

Kinesiology 144 Aerobic Exercise and Weight Control (1)

Kinesiology 146 Weight Training (1)

Aquatics

Kinesiology 110 Swimming (1)

Kinesiology 214A Basic Scuba (3)

Kinesiology 214B Intermediate Scuba (2-3)

Combatives

Kinesiology 151 Aikido (1)

Kinesiology 152 Karate (1)

Kinesiology 154 Self-Defense (1)

Kinesiology 155 Fencing (1)

Individual Sports

Kinesiology 105 Cycling (1)

Kinesiology 117 Bowling (1)

Kinesiology 119 Golf (1)

Kinesiology 120 Gymnastics (1)

Kinesiology 246A Basic Hatha Yoga (2)

Racquet Sports

Kinesiology 130 Badminton (1)

Kinesiology 131 Tennis (1)

Kinesiology 132 Racquetball (1)

Team Sports

Kinesiology 164 Volleyball (1)

Kinesiology 165 Soccer (1)

Kinesiology 167 Basketball (1)

### **English Proficiency Requirement**

In order to satisfy the upper-division writing requirement of the university, Kinesiology majors must pass: (1) Kinesiology 302 Perspectives in Kinesiology, with a grade of C or better; and (2) the Cal State Fullerton Examination in Writing Proficiency (EWP).

Please see additional information provided in this catalog on the writing requirement.

### MINOR IN KINESIOLOGY

A kinesiology minor consists of 24 units of approved course work. Course work must be completed with a grade of C or better. All courses counted toward the minor must be taken for a letter grade.

### Required Courses (21 units)

Kinesiology 260 Movement Anatomy (3)

Kinesiology 300 Principles of Human Movement (3)

Kinesiology 348 Physiology of Exercise (3)

Kinesiology 353 Physical Activity and Lifelong Well-Being (3)

> OR Kinesiology 364 Motor Development (3)

Kinesiology 371 Human Motor Control and Learning (3)

OR Kinesiology 383 Psychology of Sport and Physical Activity(3)

Kinesiology 380 History and Philosophy of Human Movement (3)

OR Kinesiology 381 Human Movement in Cultural Perspective (3)

Kinesiology 385 Instructional Analysis of Human Movement (3)

OR Kinesiology 400 Program Design in Kinesiology and Health Promotion (3)

### Electives (3 units)

Three units approved performance courses taken from the following areas: Fitness, Aquatics, Combatives, Individual Sports, Count/Racquet Sports, Team Sports.

### BACHELOR OF SCIENCE IN HEALTH SCIENCE

The Bachelor of Science degree in Health Science is offered for students who are preparing for careers as health educators as well as for those who seek quality preparation for advanced study. Students in Health Science learn how to effectively plan, implement, and evaluate prevention strategies that are practical and effective at the community, state, and national levels. The competencybased degree program prepares students for certification as a health education specialist. In addition, through elective coursework, students may focus their studies in such areas as gerontologic health, worksite health promotion, substance abuse programming, or chronic and communicable disease prevention. The degree consists of 124 units with 46 units required in the major.

Transfer students should see an adviser immediately regarding transfer credit. For information on general education, consult the Academic Advisement Center, University Hall 179. Transfer students must request two copies of transcripts of all previous scholastic work from each university or college attended.

Each course counted toward the major, including prerequisites, must be completed with a grade of C or higher. All courses counted toward the major must be taken on an Option 1 (letter grade) basis.

### Prerequisite Course Work Applicable to General Education (13 units)

Biology 101 Elements of Biology (3)

Chemistry 115 Introduction to Chemistry (4)

Psychology 101 Introduction to Psychology (3)

Speech Communications 102 Public Speaking (3)

### Core Requirements for the Major (37 units)

Health Science 101 Personal Health (3)

Introductory course in Anatomy and Physiology (3)

Health Science 320 Concepts in Health Science (3); concurrent with

Health Science 494 Practicum in Health
Science (1)

Health Science 349 Measurement and Statistics in Kinesiology and Health (3)

Health Science 400 Program Design for Kinesiology and Health Promotion (3)

Health Science 401 Epidemiology (3)

Course in Community Health Education (3)

Health Science 440 Determinants of Health Behavior (3)

Course in Instructional Methodologies for Health Education (3)

Health Science 450 Applied Health Promotion Throughout the Life Span (3)

Health Science 475 Health Science Planning, Research, and Evaluation (3)

Health Science 495 Internship in Health Science (3)

### Electives: 9 units selected with adviser approval

Aging:

Biology 306 Biology of Aging (3)

Kinesiology 454 Physical Activity and the Aging Process (3)

Chronic and Communicable Diseases:

Anthropology 442 Medical Anthropology (3)

Biology 323 Biology of Sexually Transmitted Diseases (2)

Poli Sci 344 Aids and the Health Care Crisis (3)

Environment:

Biology 300 Environmental Biology (3)

Biology 316 Principles of Ecology (4)

Fitness:

Kinesiology 348 Physiology of Exercise (3); concurrent with

Kinesiology 348L Physiology of Exercise Lab (1)

Kinesiology 455 Functional Performance
Assessment and Programming for Older
Adults (3)

Mental Health:

Health Science 342 Stress Management (3)

Nutrition:

Health Science Nutrition: Vital Link to Better Health (3)

Sexuality:

Biology 360 Biology of Human Sexuality (2)

Psychology 312 Psychology of Human Sexual Behavior (3)

Sociology 381 Sociology of Human Sexuality (3)

Substance Abuse:

Health Science 321 Drugs and Society (3)
Other electives may be considered with advisor approval.

### **English Proficiency Requirement**

In order to satisfy the upper-division writing requirement of the university, Health Science majors must pass (1) Health Science 320 Concepts in Health Science with a grade of C or better and (2) the Cal State Fullerton Examination in Writing Proficiency (EWP). Please see additional information provided in this catalog on the writing requirement.

### **MINOR IN HEALTH PROMOTION**

The Division of Kinesiology and Health Promotion offers a minor in health promotion consisting of 21 units, composed of eighteen core units and three elective units. Students interested in personal growth, community service, worksite health promotion, intellectual stimulation and professional career opportunities in the health field will find this minor a method to achieve these goals. In addition, the minor provides a concentration of courses in the health field which can be a useful adjunct for students majoring in Child Development, Human Services, Kinesiology, Psychology and Sociology.

The minor provides students with necessary tools to understand factors contributing to the promotion of health and well-being and the prevention of disease and disability. This sequence of courses offers traditional and modern approaches to education and career development in the Health Science field. It encourages a multi-disciplinary orientation.

Course work must be taken for a letter grade and completed with a *C* grade or better to be counted toward the minor.

### Required Courses (18 units)

Health Science 101 Personal Health (3)

Health Science 301 Promotion of Optimal Health (3)

Health Science 321 Drugs and Society (3)

Health Science 342 Stress Management (3)

Health Science 350 Nutrition: A Vital Link to Better Health (3)

Health Science 353 Physical Activity and Lifelong Well-Being (3)

### Electives (3 units)

Students shall choose elective units, with approval of a minor adviser, from approved courses of specific relevance to health promotion (list available in division office, Physical Education Building, Room 134).

### ATHLETIC TRAINING EDUCATION PROGRAM

The Athletic Training Education Program (ATEP) is designed to prepare students for careers as Certified Athletic Trainers (ATCs). Certified Athletic Trainers are allied health care professionals recognized by the American Medical Association as specialists in the prevention, recognition, management, and rehabilitation of injuries and/or illnesses to athletes and physically active individuals. Acceptance into the ATEP is based on a competitive admissions process, including evaluations in five areas: 1) collegiate academic performance; 2) personnel or professional recommendations; 3) written communications; 4) oral communications; and 5) practical experiences (see ATEP Director in the Division of Kinesiology and Health Promotion). Applications are available from the ATEP Director, and deadlines for applying are November 1st and May 1st each year.

In addition to entrance requirements, there are also minimal standards for continuation and completion of the ATEP. Each student in the ATEP will commit to a minimum of 5 semesters and 1,500 hours of clinical experiences. Those in the ATEP will be progressively rotated through a variety of clinical settings to learn and perfect the needed knowledge and skills. All ATEP students must achieve and maintain a 2.50 overall GPA, a 3.00 ATEP-Core GPA, and a 2.50 ATEP-Support GPA. A current CPR card must be maintained throughout the program. Upon successful completion of the Athletic Training Education Program, the student is eligible to take the National Athletic Trainers' Association Board of Certification examination.

Those students interested in the Athletic Training Education Program should meet as soon as possible with the Director in order to best plan their academic program. In addition to the University General Education require-

ments and the Kinesiology Foundation, Core, and Activity requirements, students in the ATEP must complete the following classes (or their equivalents):

### Athletic Training Education Program -Core (29 units)

Kinesiology 200 Introduction to Athletic Training (3)

Kinesiology 365 Prevention and Care of Athletic Injuries (3)

Kinesiology 373 Advanced Assessment of Lower Extremities (3)

Kinesiology 374 Advanced Assessment of Upper Extremities (3)

Kinesiology 375 Management of Athletic/Exercise Emergencies (3)

Kinesiology 377 Therapeutic Exercise in Rehabilitation (3)

Kinesiology 378 Therapeutic Modalities in Rehabilitation (3)

Kinesiology 465 Administration and Leadership in Athletic Training (3)

Kinesiology 496 Practicum (5)

### Athletic Training Education Program -Support (25 units)

Health Science 101 Personal Health (3)
Psychology 101 Introduction to Psychology (3)
Chemistry 111 Nutrition and Drugs (3)

Chemistry 100 Survey of Chemistry (3)

OR Physics 211 Elementary Physics (3) Biology 310 Human Physiology (3)

Biology 361 Human Anatomy (4) Kinesiology 351 Principles of Conditioning (3)

Kinesiology 451 Sports Medicine (3)

### SUBJECT MATTER PREPARATION PROGRAM (FOR OBTAINING SINGLE SUBJECT TEACHING CREDENTIAL IN PHYSICAL EDUCATION)

The Kinesiology and Health Promotion Division offers course work as part of the Subject Matter Preparation Program (SMPP) for obtaining a Single Subject Credential (K-12) in Physical Education.

The university program for meeting the basic requirements for the teaching credential with a specialization in Physical Education can be found elsewhere in this catalog (see Teaching Credential-Programs in the Academic Programs section). Additional information and requirements for the Division of Kinesiology and Health Promotion are as follows:

#### Advisement

The division offers guidance for students considering a teaching career. This is available through the Kinesiology Teacher Education Coordinator. Prospective students should consult with the Teacher Education Coordinator as early as possible in order to plan and acquire experiences prior to entry into the Teacher Education Program. This will help students evaluate their qualifications and plan appropriate course work.

A screening committee evaluates candidates' qualifications based on grade-point average, required SMPP coursework, experiences with children and/or adolescents, and having passed the Collegiate California Basic Education Skills Test (CBEST). Applications to the Teacher Education Program may be submitted when all required Subject Matter Preparation Program courses are in progress or completed.

### Subject Matter Preparation Program (SMPP)

In addition to, or as part of, the requirements for a major in Physical Education, all candidates for the credential must complete the following with a minimum C grade . A grade-point average of 3.0 in the major and 2.75 cumulative is required for admission in the fifth-year teaching education program.

### Required Major Foundation Courses (15 Units)

Kinesiology 260 Movement Anatomy (3)

Kinesiology 300 Principles of Movement (3)

Kinesiology 302 Perspectives in Kinesiology (3)

Kinesiology 349 Measurement and Statistics in Kinesiology and Health (3)

Kinesiology 364 Motor Development (3)

### Required Major Core Courses (21 Units)

Kinesiology 348 Physiology of Exercise (3)

Kinesiology 371 Human Motor Central and Learning (3)

Kinesiology 380 History and Philosophy of Physical Education and Sport (3)

Kinesiology 381 Human Movement in Cultural Perspective (3)

Kinesiology 383 Psychology of Sport and Physical Activity (3)

Kinesiology 385 Instructional Analysis of Human Movement (Formerly Kinesiology 341) (3) Kinesiology 400 Program Design for Kinesiology and Health Promotion (3)

### Required Electives for Teacher Education Students (19 Units)

Health Science 102 Prevention and First Aid (2)

Kinesiology 325 Techniques of Coaching (3)

Kinesiology 353 Physical Activity and Lifelong Well-Being (3)

Kinesiology 363 Developmental Adaptations of Atypical (3)

Kinesiology 386 Movement and the Child (3)
—requires concurrent enrollment in
Kinesiology 496 Practicum (1)

Kinesiology 387 Movement and the Adolescent (3) 6 requires concurrent Enrollment in Kinesiology 496 Practicum (1)

### Prerequisite Performance Courses for Teacher Education (10 Units)

A minimum of eight courses, representing each of the following areas: (Intercollegiate sports courses may be applied in the appropriate area).

Fitness (1 unit)

Kinesiology 100 Physical Conditioning (1)

Kinesiology 102 Jogging (1)

Kinesiology 103 Fitness Walking (1)

Kinesiology 144 Aerobic Exercise and Weight Control (1)

Kinesiology 146 Weight Training (1)

Aquatics (1 unit)

Kinesiology 110 Swimming (1)

Kinesiology 214A Basic Scuba (3)

Kinesiology 214B Intermediate Scuba (2-3)

Combatives (1 unit)

Kinesiology 151 Aikido (1)

Kinesiology 152 Karate (1)

Kinesiology 154 Self-Defense (1)

Kinesiology 155 Fencing (1)

Individual Sports (2 units)

Teacher Education students must take two courses in this area. One of these courses must be Kinesiology 120 Gymnastics. The other may be selected from the remaining alternatives.

Kinesiology 105 Cycling (1)

Kinesiology 117 Bowling (1)

Kinesiology 119 Golf (1) Carrell associative

Kinesiology 120 Gymnastics (1)

Kinesiology 246A Basic Hatha Yoga (2)

Racquet Sports (1 unit)

Kinesiology 130 Badminton (1)

Kinesiology 131 Tennis (1)

Kinesiology 132 Racquetball (1)

Team Sports (1 unit)

Kinesiology 164 Volleyball (1)

Kinesiology 165 Soccer (1)

Kinesiology 167 Basketball (1)

Dance (3 units)

Dance 101 Introduction to Dance (3)

OR Dance 471 Creative Dance for Children (3)

### Admission to Teacher Education

In addition to the requirements set forth in the Teaching Credential Programs and Department of Secondary Education sections of this catalog, the Division of Kinesiology and Health Promotion requires candidates to complete the Physical Education Subject Matter Preparation Program (formerly waiver program) and to submit an application for the teaching program. In addition, the candidate must be available for a personal interview by the Kinesiology Teacher Education Committee.

Prospective Teacher Education candidates are strongly encouraged to take additional units for a supplementary credential in a second subject area. More information is available from the Secondary Education

Admissions Office (Education Classroom 207).

Acceptance into the program allows the candidate to enroll in a two-semester sequence:

First semester

Ed Sec 440F, 440R, 440S, Kinesiology 442, 449E.

Second semester

Kinesiology 449I, 449S.

Course to be completed by end of second semester

Ed Sec 440M.

### MASTER OF SCIENCE IN KINESIOLOGY

The graduate program in Kinesiology provides a broad, comprehensive study of the varied aspects of human movement.

Movement across the entire lifespan is observed and studied from mechanical, phys-

iological, psychological, sociocultural, behavioral, instructional, and professional points of view

The coursework for the degree is designed to: (1) Prepare students for additional study in one or more subdisciplines of Kinesiology biomechanics, motor control and learning, physiology of exercise, pedagogy, sport/exercise psychology, and philosophical or sociocultural perspectives, and/or (2) Provide background knowledge for professional careers in various movement contexts - adult fitness, aging and physical activity, athletic training, coaching, teaching, strength and conditioning, performance enhancement, and other sport movement environments. Graduate courses are held one afternoon or evening a week to facilitate those students who are unavailable during the day.

### Admission Requirements

All graduate degree applicants must meet the university requirements for admission. which include a baccalaureate degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units attempted. To be admitted into the graduate program in Kinesiology, a student must further: (1) possess an undergraduate degree in Kinesiology, Exercise Science, or Physical Education with a grade-point average of at least 3.2 in upper division major coursework; (2) complete the Graduate Record Exam general test; (3) submit a 500word essay describing the applicant's academic preparation and goals in the area of intended study within the degree program; and (4) submit two letters of recommendation. Screening of fall semester applicants begins March 1; screening of spring semester applicants begins November 1.

Students who meet the general university requirements, but do not meet the Kinesiology degree requirements, may apply to the university for postbaccalaureate-unclassified standing. Any student without an undergraduate degree in Kinesiology, Exercise Science, Physical Education, or a related field must complete 18 units of approved coursework with a grade-point average of at least 3.2. Any student with a grade-point average deficiency must complete additional undergraduate coursework as specified by the Kinesiology graduate program adviser. Once all admission requirements are subsequently met, a change of program may be requested from postbaccalaureate-unclassified standing to conditionally classified in Kinesiology.

#### **Classified Standing**

Classified standing requires the development of a study plan (see below) approved by the faculty adviser, graduate studies committee, Kinesiology graduate program adviser, and office of graduate studies. No more than nine units of graduate work taken before classification may be included on the study plan. Any changes to the study plan after classified standing is granted must be approved in advance, in writing, by the Kinesiology graduate program.

### Advancement to Candidacy

Advancement to candidacy is attained by requesting a graduation check in the semester prior to graduation (see class schedule for deadlines) and receiving subsequent approval from the graduate studies adviser on the grad check completion review form, mailed by the Graduate Studies Office. Students not completing requirements by the graduation date specified on the original graduation check must contact the Graduate Studies Office.

### Graduate Advisement

Students should consult with the Kinesiology graduate studies adviser for general information regarding the program. Upon acceptance to the program, students choose or are assigned a faculty adviser who assists in developing the study plan. Thesis/project advisers are selected in consultation with the student, faculty adviser, and potential thesis/project chair. Students may not register for thesis/project without the consent of the thesis/project chair. Advisement during the summer is provided by the department chair. Students may not register for, or complete, thesis/project studies during the summer without written consent of the thesis/project committee.

### Study Plan

The graduate degree in Kinesiology consists of a total of 30 units, at least 18 units of which must be 500-level. Once accepted into the program, each student must create a study plan under faculty advisement before completing nine units of work.

The study plan may include Kinesiology 508 and Kinesiology 510 (which fulfills the graduate level writing requirement). It also may include the advanced study course in the studentis declared major subdicipline and one advanced study course in a minor subdiscipline. It further includes 15-18 units of elective coursework chosen with faculty approval. The elective courses must be 400

or 500-level courses taken either from within Kinesiology or from other departments within the university. The study plan must display breadth by including coursework representing three subdisciplines or professional interest areas within the field of Kinesiology. Finally, the study plan must include one of the three culminating experience options listed below.

Required Courses (6 units)

Kinesiology 508 Statistical Methods in Kinesiology (3)

Kinesiology 510 Research in Kinesiology (3)

Advanced Study Courses (Select 6 units)

Kinesiology 516 Advanced Study of the Philosophical Perspectives of Human Movement (3)

Kinesiology 551 Advanced Study in Physiology of Exercise (3)

Kinesiology 558 Advanced Study in Teaching Human Movement (3)

Kinesiology 561 Advanced Study in Biomechanics (3)

Kinesiology 571 Advanced Study in Human Motor Control and Learning (3)

Kinesiology 580 Advanced Study in Sport and Exercise Psychology (3)

Kinesiology 582 Advanced Study in Sociocultural Perspectives of Human Movement (3)

Elective Courses (Select 15-18 units)

Approved 400/500-level courses in Kinesiology

Approved 400/500-level courses in other departments

Culminating Experience (0-3 units)

Kinesiology 597 - Project (3 units)

OR Kinesiology 598 - Thesis (3 units)

OR Comprehensive Examination (0 units)

### KINESIOLOGY COURSES

Only one section of the following performance courses may be taken in the same semester (e.g., Kinesiology 131A,B,C,D are the same activity): Kinesiology 100, 102 through 167, 214A, 214B, and 246A.

### 100-167 Performance Courses (1)

100 Physical Conditioning; 102 Jogging; 103 Fitness Walking; 105 Cycling; 110 Swimming; 117 Bowling; 119 Golf; 120 Gymnastics; 130 Badminton; 131 Tennis; 132 Racquetball; 144 Aerobic Exercise and Weight Control; 146 Weight Training; 151 Aikido; 152 Karate; 154 Self-Defense; 155 Fencing; 164 Volleyball; 165 Soccer; 167 Basketball. Performance courses are primarily instructional. Beginning, intermediate and advanced sections are offered for most performance courses. Students who already possess some proficiency in an activity should consider the course chosen from the standpoint of the level of skill development which may be encountered, standards of proficiency expected and their own ability level. Initial assessment and determination will be made by the course instructor. May be repeated for credit.

### 170-189 Intercollegiate Sports (2)

Prerequisite: consent of coach. An intercollegiate activity in individual or team sports in an educational setting under the direction of a coach. 170 Gymnastics; 172 Cross Country; 174 Track-Field; 175 Tennis; 176 Wrestling; 177 Fencing; 178 Basketball; 179 Baseball; 180 Soccer; 184 Football; 185 Volleyball - W; 186 Softball. May be repeated for credit.

### 190 Team Management (2)

Prerequisites: consent of coach and department chair. Field experience in the management of an intercollegiate sport. May be repeated for maximum of eight units of credit. (Credit/No Credit only)

### 200 Introduction to Athletic Training (3)

Practical skills acquisition for the treatment, prevention and care of sports-related injuries. Basic required course for all students admitted to the Athletic Training Education Program. (2 hours lecture/2 hours activity)

### 214A Basic Scuba (3)

Prerequisites: Ability to swim 400 yards, tread water one minute and swim 25 yards underwater. Skin and scuba diving, theory of diving, safety procedures and ocean environment. Open Water Basic Scuba Certification earned with successful completion. (1 hour lecture, 2 hours pool activity/ocean dives)

### 214B Intermediate Scuba (2-3)

Prerequisite: Open Water Scuba Certification. Application of scuba diving, including photography, navigation, salvage, game hunting, night diving and others. Advanced Scuba Certification for successful completion. (1 hour lecture, 2 hours pool activity/ocean dives)

### 246A Basic Hatha Yoga (2)

Basic Yoga postures, breathing and relaxation techniques, and beginning meditation techniques from theoretical and experiential perspectives. Awareness, concentration and breathing patterns that accompany the movements of Hatha Yoga. (1 hour lecture, 2 hours activity) (Same as Religious Studies 246A)

### 250 Mental Skills for Sport Performance (3)

Developing an understanding of the mental aspects of sport performance and learning mental skills that can be used to enhance sport performance. (Credit/No Credit only)

### 260 Movement Anatomy (3)

Prerequisite: a course in either human anatomy or human anatomy and physiology. The muscular-skeletal system and its function in human movement. Movement in sports skills and the muscles involved.

#### 300 Principles of Human Movement (3)

Prerequisite: Kinesiology 260. General movement patterns as applied to sport and human movement.

### 302 Perspectives in Kinesiology (3)

Prerequisite: completion of three units in General Education category III.B.2. Introduction to the Humanities. Examines ways of knowing human movement in kinesiology studies. Epistemologies examined include authority, rationalism, empiricism, pragmatism, subjective ways of knowing and narratives. Meets upper-division writing requirement for Kinesiology majors.

### 325 Techniques of Coaching (3)

Prerequisite: upper division standing; concurrent enrollment in Kinesiology 496 suggested. Factors related to coaching strategies and techniques: philosophy, ethics, legal issues, gender, multicultural and equity issues, leadership, motivation, team management, budget, recruiting, equipment purchase, skill acquisition, season planning, conditioning, nutrition, and drugs.

### 342 Stress Management (3)

(Same as Health Science 342)

Kinesiology majors may count this course either for the major or for General Education.

### 348 Physiology of Exercise (3)

Prerequisite: a course in human physiology or in human anatomy and physiology. Physiological processes in physical activities and the effect of training upon performance.

### 348L Physiology of Exercise Laboratory (1)

Prerequisite: prior completion or concurrent enrollment in Kinesiology 348. Laboratory techniques in physiology of exercise. (3 hours laboratory)

### 349 Measurement and Statistics in Kinesiology and Health (3)

A study of measurement theory and statistics used in the evaluation of health and human performance, with special focus on the analysis and interpretation of data in different environments. (Same as Health Science 349)

### 350 Nutrition: A Vital Link to Public Health (3)

(Same as Health Science 350)

### 351 Principles of Conditioning (3)

Prerequisites: Kinesiology 260 and 348 required; 300 recommended. Conditioning for those who plan to coach or supervise fitness programs. Circuit training, nutrition, motivation, weight control and kinesiology factors.

### 353 Physical Activity and Lifelong Well-Being (3)

Prerequisites: one course from Category IIII. of General Education and junior or senior standing. An integration of physiological, psychological and sociological understandings of the human being in relationship to physical activity as a lifelong pursuit. Topics include physical fitness, nutrition, stress reduction, socialization, and individual differences in human behavior. Health Science majors may count this course either for the major or for General Education. Kinesiology majors may not count this course for General Education. (Same as Health Science 353)

### 364 Motor Development (3)

Prerequisites: Kinesiology 260. Life span motor development: age, sex, ethnic, cultural and perceptual components; their implications and the main course of action needed in developmental strategies for optimal motor behavior development.

### 365 Prevention and Care of Athletic Injuries (3)

Prerequisite: upper-division standing, Kinesiology 200 or consent of instructor. Focuses upon immediate observation and examination of injuries. Special emphasis will be placed upon the etiology, pathology, signs, symptoms and complications related to injuries sustained by athletes.

### 371 Human Motor Control and Learning (3)

Prerequisite: junior or senior standing, Kinesiology 364, Kinesiology 300 recommended. An examination of the neural musculoskeletal, and psychological mechanisms underlying the control and learning of movement skills across the lifespan.

### 371L Human Motor Control Learning Laboratory (1)

Prerequisite: prior completion or concurrent enrollment in Kinesiology 371.

Laboratory techniques in motor control and learning studies. (3 hours laboratory)

### 373 Advanced Injury Assessment of the Lower Extremity (3)

Prerequisite: Kinesiology 365. This advanced course is designed to develop the knowledge and clinical skills related to the recognition, evaluation, and assessment of pathologies to the lower extremity and lumbar spine.

### 374 Advanced Injury Assessment for the Upper Extremity (3)

Prerequisite: Kinesiology 365. This is an advanced course intended to develop the knowledge and clinical skills related to the recognition, evaluation, and assessment of pathologies to the upper extremity and cervical spine

### 375 Management of Sport/Exercise Emergencies (3)

Prerequisite: Kinesiology 200 or equivalent. This course is designed to provide the theoretical, practical, and clinical basis for the recognition, treatment, and management of medical emergencies and catastrophic situations involving the physically active individuals, including athletes.

### 377 Therapeutic Exercise in Rehabilitation (3)

Prerequisite: Kinesiology 200 or equivalent. This course is designed to provide the theoretical and clinical basis for therapeutic exercise in rehabilitation. Therapeutic exercises as they relate to injury rehabilitation will be developed for student syntheses and understanding.

### 378 Therapeutic Modalities in Rehabilitation (3)

Prerequisite: Kinesiology 200 or equivalent. This course is intended to provide theoretical, clinical, and practical basis for the use of therapeutic modalities in rehabilitation. Information concerning physical agents and biophysics, indications, contraindications, physiological effects, and applications will be developed.

### 380 History and Philosophy of Human Movement (3)

Prerequisites: completion of General Education category II.A and III.B.2. Historical development of thought and practice in athletics, sport, kinesiology, play, dance, and other human movement forms from ancient Greeks to the present. Philosophical theories of human movement relative to personal identity, reality, being, values, and nature of competition.

### 381 Human Movement in Cultural Perspective (3)

Prerequisites: one course from Category IIII. of General Education and upper-division standing. Human movement in the cultural milieu. Historical and contemporary interpretations of the role of play, games, sports, dance and recreation in human life. Health Science majors may use this either for the major or for General Education.

### 383 Psychology of Sport and Physical Activity (3)

Introduction to theory and research of psychological processes that influence human performance in numerous movement settings including sport, exercise, and rehabilitation. Topics include individual difference variables (e.g., personality, arousal/anxiety, and motivation), social psychological variables (e.g., aggression, leadership, and group dynamics), and assessment and intervention (e.g., goal setting, cognitive techniques, and behavioral change strategies).

### 384 Sport Sociology (3)

Prerequisite: Kinesiology 381 or consent of instructor. Sport and social institutions and social processes. Understanding sport as a social phenomenon.

### 385 Instructional Analysis of Human Movement (3) (Formerly 341)

Prerequisites: completion of a minimum of six units of Kinesiology performance classes in specified areas (i.e., fitness, aquatics, combatives, individual sports, court/racquet sports, team sports) and Kinesiology 300. This course examines variables and principles which contribute to effective observation, analysis, and instruction of human movement skills across the life span.

### 386 Movement and the Child (3) (Formerly 372)

Prerequisite: Kinesiology 385 (for Kinesiology majors only). Corequisite: Kinesiology 496 (1 unit). Characteristics of the child; physical growth and development; basic mechanical principles underlying efficient movement; and programs for physical needs of children in the elementary school.

### 387 Movement and the Adolescent (3)

Prerequisite: Kinesiology 385. Corequisite: Kinesiology 496 (1 unit). Prepares students to implement physical education programs at the secondary level. Addresses cognitive, affective and psychomotor development; structure, concepts and principles related to human movement and motor learning; concepts related to the design of secondary school movement programs.

### 396 Physical Education Tutorial (1)

Prerequisite: consent of instructor and tutorial adviser. Supervised experience in performance or laboratory situations through tutoring or assisting in instruction. May be repeated for six units of credit. A maximum of three units may be applied toward the major.

### 400 Program Design in Kinesiology and Health Promotion (3)

Prerequisite: Kinesiology 302 or Health Science 320. This course is designed to provide the student with the skills necessary for developing, implementing, and evaluating human movement and/or health promotions programs for specific target populations. (Same as Health Science 400)

### 406 Principles of Sport and Exercise Management (3) (Formerly 490)

Prerequisite: junior or senior standing. A broad overview of sport/exercise management enterprise, including school, facility, professional, commercial, industrial, corporate management and specialists in marketing, print/electronic media. Job descriptions, professional preparation and placement opportunities are detailed. Portfolio development.

### 408 Sports Fund Raising and Packaging (3)

Prerequisite: junior or senior standing, Kinesiology 406 or equivalent. Fund raising theories and principles with application to educational, professional and commercial sports. The importance of marketing within the sports setting. Theories and principles as relevant to the intercollegiate and professional athletic leagues.

### 414 Legal Issues in Sport and Exercise (3)

Prerequisite: junior or senior standing.

Analysis of the major legal issues involved in the conduct of amateur and professional sport and the teaching and administration of Physical Education. Issues include: coaching, student athlete, sports medicine, officials, spectators, facilities, equipment, and contracts.

### 430 Applied Sport Psychology (3)

Prerequisites: junior or senior standing, Kinesiology 383. Application of principles from sport psychology literature to enhance athletes' and coaches' performance.

### 432 Applied Exercise Psychology (3)

Prerequisites: junior or senior standing, Kinesiology 348 and 383 or equivalent. Understanding and applying the principles from exercise psychology to enhance competencies and skills related to preventive and rehabilitative exercise programs.

### 442 Teaching Physical Education (3)

Prerequisite: admission to teacher education. Objectives, methods and materials of teaching Physical Education K to 12.

Required before student teaching. Part of the 12-unit education block and may not be taken separately. (Credit/No Credit only.

Requires B or better for credit.)

### 449E Externship in Secondary Teaching (3)

To be taken concurrently with Kinesiology 442. See description under Secondary Education. (Credit/No Credit only. Requires B or better for credit.)

### 449I Internship in Secondary Teaching (10)

See description under Secondary Education. (Credit/No Credit only. Requires B or better for credit.)

### 449S Seminar in Secondary Teaching (2)

See description under Secondary Education. (Credit/No Credit only. Requires B or better for credit.)

### 451 Sports Medicine (3)

Prerequisites: junior or senior standing, Kinesiology 348 and 348L. Addresses those alterations in human movement, anatomy, and physiology that are caused by such factors as injury, drugs, and environment.

### 452 Graded Exercise Testing and Prescription (3)

Prerequisites: junior or senior standing, Kinesiology 348 and 348L; Kinesiology 351 and 451 recommended. Methods of graded exercise testing in the apparently healthy adult. Guidelines for aerobic exercise prescription. Discussion of cardiovascular disease and identification of risk factors.

### 454 Physical Activity and the Aging Process (3)

Prerequisites: junior or senior standing, minimum of 6 units of upper division
Kinesiology courses completed or 6 units from the Gerontology minor. Examination of the scientific evidence concerning the relationship between level of physical activity and one's physical, mental and psychological well-being during aging.

### 455 Functional Performance Assessment and Programming for Older Adults (3)

Prerequisites: junior or senior standing. Kinesiology 349 and either Kinesiology 353, 371, or 454. This course emphasizes the development of technical and personal skills related to functional performance assessment and to the development and implementation of physical activity programs for healthy and frail older adults.

### 461 Biomechanical Analysis of Human Movement (3)

Prerequisites: junior or senior standing, Kinesiology 300, Physics 211 recommended. An analytical approach to the mechanics of human motion. Quantitative video analysis techniques are introduced and applied to select movement analysis projects.

### 465 Administration and Leadership in Athletic Training (3) (Formerly 450)

Prerequisite: Kinesiology 365 or equivalent. This course is intended to enable students to comprehend and appraise the many theoretical, legal, moral, ethical, technical, and practical aspects of administration and leadership in sports health care programs, including those in athletic training.

### 480 Women and Sport (3)

Prerequisites: junior or senior standing, minimum of 15 Kinesiology upper-division units completed. A multidimensional focus of influences impacting women's competitive and non-competitive sport participation with emphasis on access, inclusion, adherence, benefits/liabilities, and lifelong well being.

### 483 Sport in Film and Fiction (3)

Prerequisites: junior or senior standing, Kinesiology 380 or 381 or 383. This course examines sport in film and fiction with emphasis on themes that can be compared with real sport experiences. Sport heroes, the aging athlete, sport in the country and city, racism, and sexism are examined through literary criticism.

### 495 Internship Seminar (1)

Prerequisite: junior or senior standing, minimum of 12 units of upper-division Kinesiology courses completed, and consent of faculty sponsor, field supervisor, fieldwork coordinator and chair. Corequisite: Kinesiology 495L. Analysis of field experiences including appropriate theory, skills and techniques. May not be repeated for credit toward the major.

### 495L Internship in Kinesiology (2)

Prerequisite: junior or senior standing, minimum of 12 units of upper-division Kinesiology courses completed, and consent of faculty sponsor, field supervisor, fieldwork coordinator and chair. Corequisite: Kinesiology 495. Supervised experience in an approved fieldwork location agency. Internship must be specific to the discipline of kinesiology. Minimum of 120 hours per semester. Application forms must be completed and approved prior to enrollment. Upon completion of the internship, a written report must be submitted. May not be repeated for credit toward the major.

#### 496 Practicum (1-3)

Prerequisites: junior or senior standing, consent of faculty sponsor, field supervisor, fieldwork coordinator, and chair. Planning, preparing, coaching, teaching in public school, college, or community physical education or recreation programs. May be repeated for a maximum of six units of credit. Credits not applicable toward major or fifth year work. (Credit/No Credit only).

### 499 Independent Study (1-3)

Prerequisite: junior or senior standing, minimum of 15 upper division Kinesiology courses completed. Topics based on a study plan prepared in cooperation with a faculty supervisor. Culminates in a paper, project, comprehensive examination or performance. Application forms must be completed and approved prior to enrollment. Maximum of three units in any one semester; may be repeated once.

### 508 Statistical Methods in Kinesiology (3)

Prerequisites: graduate status, Kinesiology 349. Statistical theory, data collection procedures, techniques for analysis and interpretation of data.

### 510 Research Methods in Kinesiology (3)

Prerequisites: graduate status, Kinesiology 508. The fundamental tools of research. Types of research, process of scientific inquiry and critical analysis of research. Topic selection and development of a research proposal.

### 511 Sport/Exercise Administration and Operations (3)

Prerequisites: graduate status, Kinesiology 406. Principles of sport/exercise administration and operations applied to selected community, corporate and public settings which involve sport/exercise programs and events.

### 516 Advanced Study of the Philosophical Perspective of Human Movement (3)

Prerequisites: graduate status, Kinesiology 382. Methods of the philosophical process and human movement.

### 536 Contemporary Problems and Issues in Sport Management (3)

Prerequisites: graduate status, Kinesiology 406. Historical trends, current issues, and related problems of the sport and exercise industry. Job related decision-making.

### 550 Graduate Internship (3)

Prerequisites: graduate status, consent of faculty sponsor, field supervisor, field coordinator and chair. On-the-job training experiences supervised by a fully trained practitioner. Minimum of 150 hours per semester plus conferences with faculty sponsor. Application forms must be completed and approved prior to enrollment. Upon completion of the internship, a written evaluation must be submitted. Not open to students on, or subject to, academic probation.

### 551 Advanced Study in Physiology of Exercise (3)

Prerequisites: graduate status, Kinesiology 348 and 348L. Current issues and research in physiology of exercise with emphasis on physiological control during acute exercise. Includes written, oral and laboratory assignments.

### 555 Scientific Bases of Training (3)

Prerequisites: graduate status, Kinesiology 351 and 551. The anatomical and physiological bases for programs that develop physical fitness and performance.

### 556 Environment Exercise Physiology (3)

Prerequisites: graduate status, Kinesiology 551. The interrelationship between the physical environment and the human while exercising under different states of fitness and acclimatization.

### 557 Instructional Strategies in Physical Education and Sport (3)

Prerequisites: graduate status, Kinesiology 371 or 383. Study of theoretical concepts, models, and research on instructional strategies for Physical Education, sport and related professional setting. Highly recommended for graduate students in all concentrations in Physical Education.

### 558 Advanced Study in Teaching Human Movement (3)

Prerequisites: graduate status, Kinesiology 300 or Kinesiology 371 or consent of the instructor. Provides a general overview of historical perspectives and current trends in pedagogical research and the resultant principles that undergird the science of teaching human movement.

### 561 Advanced Study in Biomechanics (Formerly 552)

Prerequisites: graduate status, Kinesiology 461. Advanced methods and concepts associated with the quantification of human movement. Emphasis is placed upon the biomechanical analysis of force plate and three-dimensional video data.

### 571 Advanced Study in Human Motor Control and Learning (3) (Formerly 554)

Prerequisites: graduate status, Kinesiology 371. In-depth study of contemporary trends and issues in motor control/learning research.

Emphasis on application of research to practice.

### 580 Advanced Study in Sport and Exercise Psychology (3)

Prerequisites: graduate status, Kinesiology 383. Current issues and research in sport and exercise psychology. Topic areas include: motivation, personality, leadership and group dynamics, attention/concentration, exercise adherence/compliance, sport and exercise injury, and behavioral change strategies.

### 582 Advanced Study in Sociocultural Perspectives of Human Movement (3)

Prerequisites: graduate status and Kinesiology 384, or consent of instructor. An in-depth study of the theories and methods of the sociocultural perspective and their application to the study of human movement phenomena.

### 597 Project (3)

Prerequisites: graduate classified status, Kinesiology 510, successful completion of an oral presentation of the project, and signature of all committee members on or before the census date of the semester in which the student elects to enroll. Directed independent inquiry. Not open to students on, or subject to, academic probation.

#### 598 Thesis (3)

Prerequisites: graduate classified status, Kinesiology 510, successful completion of an oral presentation of the thesis, and signatures of all committee members on or before the census date of the semester in which the student elects to enroll. Student will select and have approved a research proposal, conduct the research, and prepare a formal analysis and report. May be repeated. Not open to students on, or subject to, academic probation.

### 599 Graduate Independent Research (1-3)

Prerequisites: graduate status, Kinesiology 510, and consent of the faculty adviser and chair. Student research in a specific area of human movement studies. Application forms must be completed and approved prior to enrollment. Upon completion of the research, a written report must be submitted. Not open to students on, or subject to, academic probation. Maximum of three units in any one semester; may be repeated once.

### **HEALTH SCIENCE COURSES**

#### 101 Personal Health (3)

Basic concepts relating to health and wellbeing from a holistic perspective. Mental, emotional, physical and socio-environmental dimensions of health, sexuality and relationships; nutrition and physical fitness; use and abuse of drugs; health care services and current health problems. Instructional fee required.

#### 102 Prevention and First Aid (2)

The hazards in environment. The care and prevention of accidents. Standard first aid certification by the American Red Cross granted upon successful completion of requirements.

### 301 Promotion of Optimal Health (3) (Same as Nursing 301)

### 320 Concepts in Health Science (3)

Prerequisites: one course from category IIIA 2 or 3 of general education and junior or senior status. Corequisite: Health Science 494 (1 unit). Theoretical and practical issues of Health Science as a profession. Topics include: history, status, resources, roles in various settings, legal and ethical issues in health education.

### 321 Drugs and Society (3)

Prerequisite: completion of lower-division general education science requirement and junior or senior status. Habit-forming substances such as alcohol, tobacco, narcotics, hallucinogens, and related drugs, stimulants and depressants. Social, historical, and legal aspects of the drug problem are considered.

#### 342 Stress Management (3)

Prerequisites: one course from Category IV. B of general education; junior or senior standing. The nature of stress and the physiological and psychological effects of prolonged stress responses. Includes short and long term somatic and behavioral techniques (exercise, relaxation, meditation, nutrition, time management and goal setting) for management of stress. Health Science majors may not count this course for General Education.

Kinesiology majors may count this course either for the major or for General Education. (Same as Kinesiology 342)

### 349 Measurement and Statistics in Kinesiology and Health (3)(Same as Kinesiology 349)

### 350 Nutrition: A Vital Link to Better Health (3)

Prerequisite: Chemistry 115 or comparable course and junior or senior status.

Concepts of nutrition as they relate to nutritional needs, practices, and problems throughout the life cycle. Emphasis on nutritional counseling and education of individuals/groups toward health promotion and disease prevention. Open to non-nursing majors. (Same as Kinesiology 350)

### 353 Physical Activity and Lifelong Well-Being (3) (Same as Kinesiology 353)

Health Science majors may count this either for the major or for General Education.

### 356 Health Education for Secondary Teachers (3)

Prerequisite: senior or postbaccalaureate status. Course is designed to assist secondary teachers to promote and protect the health and well-being of middle and high school students. This course is designed to satisfy the Commission on Teacher Credentialing requirement for health education, including nutrition, alcohol, tobacco, and other drugs.

### 357 Health Education for Elementary Teachers (3)

Prerequisite: senior or postbaccalureate status. The teacheris role in the comprehensive school health system. This course is designed to satisfy the Commission on Teacher Credentialing requirement for health education, including nutrition, alcohol, tobacco, and other drugs.

### 400 Program Design for Kinesiology and Health Promotion (3) (Same as Kinesiology 400)

### 401 Epidemology (3)

Prerequisites: Health Science 320 and 349. Application of epidemologic procedures to the understanding of the occurrence and control of infectious and chronic diseases, mental illness, environmental health hazards, accidents and geriatric problems. (Same as Nursing 401)

### 440 Determinants of Health Behavior (3)

Prerequisites: Health Science 320. Survey of contemporary research on the health effect of human behavior. Introduction to theoretical foundations and practical applications of behavior in the context of health: physical, psychological, cultural and social health. Includes current issues and theories of health behavior.

### 450 Applied Health Promotion Throughout the Lifespan (3)

Prerequisite: Health Science 320 or equivalent. Health promotion/risk reduction program content, development, implementation and evaluation. Topics include: weight control, stress management, substance abuse, physical fitness and accident prevention.

### 475 Health Science Planning, Research and Evaluation (3)

Prerequisites: Health Science 320 and 349 or equivalent. Identification and application of concepts related to Health Science planning, research and evaluation. Includes analysis of planning and research designs applicable to health professionals as well as tools for measurement of health status at individual, community, national levels.

### 494 Health Science Practicum (1-3)

Prerequisites: Health Science 320, junior/senior standing and consent of instructor. An elective for Health Science majors offering an opportunity to plan, implement, and evaluate special community-based projects under faculty supervision. May be repeated 6 units maximum. Credit/no credit only.

### 495 Internship in Health Science (3)

Prerequisites: Health Science 320 and 450, senior status and consent of instructor. Supervised observation and field experience in community health settings as conducted by government, voluntary, professional or industrial/corporate organizations. (May be repeated one time.)

## latin american studies INTRODUCTION

#### PROGRAM COORDINATOR:

Robert Voeks

### PROGRAM OFFICE:

McCarthy Hall 103

#### **PROGRAMS OFFERED**

Bachelor of Arts in Latin American Studies

Minor in Latin American Studies

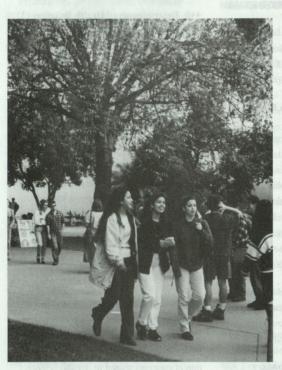
### PARTICIPATING FACULTY

Nancy Baden (Foreign Languages), Ruth Capelle (Art), Isaac Cardenas (Chicano Studies), Donald S. Castro (History), James Dietz (Economics), Roger Dittmann (Physics), Dagoberto Fuentes (Chicano Studies), Ana Garza (Education), Ron Harmon (Foreign Languages), Jeff Himpele (Anthroplogy), Juan Carlos Gallego (Foreign Languages), Joanne Gass (English), Arturo Jasso (Foreign Languages), Leroy Joesink-Mandeville (Anthropology), Irene Lange (Marketing), Sheldon Maram (History), Ervie PeÒa (Foreign Languages), Joseph Platt (Chicano Studies), Marlene de Rios (Anthropology), Gerald Rosen (Sociology), Robert Voeks (Geography), Bruce Wright (Political Science).

### **ADVISER**

Robert Voeks

Latin America is our closest neighbor and is an underdeveloped region with vast potential. Countries range in size from the small islands of Puerto Rico and the Dominican Republic to resource-rich Brazil, which is larger than the continental United States. Most of these countries face fundamental economic and social problems which must be solved if extremes of wealth and poverty are to be overcome, more jobs are to be available, health care is to be improved, illiter-



acy is to be conquered, and democracy and social justice are to prevail.

By pursuing a broad yet indepth course of study, Latin American studies students are well equipped to enter many fields and occupations as teachers in the United States or Latin America, as business people sensitized to Latin American history and culture, or as journalists, lawyers, and doctors where contact with Latin America or Latin Americans in the United States is important.

The Latin American studies major is designed to provide an in-depth, interdisciplinary understanding of Latin America. Majors develop language proficiency in both Spanish and Portuguese and

have a broad range of courses from which to choose in anthropology, economics, history, geography, political science, and foreign languages and literature. The major is well-suited for: (1) students who wish to pursue careers which require residence in or knowledge of Latin America (e.g., business, journalism, government); (2) those who plan to teach Spanish and/or social sciences in the secondary schools; and (3) students who wish to pursue graduate work in Latin American studies or other disciplines where a Latin American specialization would be helpful (e.g., political science, economics, history).

### **BACHELOR OF ARTS IN LATIN AMERICAN STUDIES**

### Foundation Courses

All majors should develop a language proficiency level equivalent to Spanish 204 and

Students with no language background should take:

Spanish 101 Fundamental Spanish - A (5)

Spanish 102 Fundamental Spanish - B (5)

Spanish 203 Intermediate Spanish - A (3)

Spanish 204 Intermediate Spanish - B (3)

Portuguese 101 Fundamental Portuguese - A (4)

Portuguese 102 Fundamental Portuguese - B (4)

A student with a knowledge of Spanish and/or Portuguese may be able to meet part or all of the foundation course requirements by taking a test administered by the Department of Foreign Languages and Literatures.

### Required Fields of Study

Upper-Division Writing Requirement (3 units) English 301 Advanced Composition (3)

Language (3 units)

Spanish 301 Advanced Conversation and Composition (3)

OR Portuguese 317 Advanced Conversation and Composition (3)

History and Culture (9 units)

Spanish 316 Introduction to Spanish American Civilization (3)

OR Portuguese 325 Contemporary Brazilian Civilization (3)

and History 350 History of Latin American Civilization (3)

and three additional units in upper-division Latin American history

Social Science (6 units) selected from two departments

Anthro 324A The Ancient Maya (3)

Anthro 324B The Aztecs and Their Predecessors (3)

Anthro 325 Peoples of South America (3)

Economics 333 Economic Development: Analyses and Case Studies (3)

Economics 334 Economics of Latin America and the Caribbean (3)

Geography 333 Latin America (3)

Poli Sci 437 Latin American Politics (3)

Poli Sci 452T Foreign Policy of a Selected Country or Group of Countries (3)\*

### Elective Fields of Study

Twelve units selected from three or more of the following groupings chosen in consultation with the program coordinator:

### Culture

Anthro 324A The Ancient Maya (3)

Anthro 324B The Aztecs and Their Predecessors (3)

Anthro 325 Peoples of South America (3)

Chicano 302 Ancient Mexican Culture (3)

Chicano 403 Cultural Differences in Mexico and the Southwest (3)

Chicano 453 Mexico Since 1906 (3)

Portuguese 317 Advanced Conversation and Composition (3)

OR Spanish 301 Advanced Conversation and Composition (3)

Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)

Portuguese 325 Contemporary Brazilian Civilization (3)

OR Spanish 316 Introduction to Spanish-American Civilization (3)

Spanish 416 Contemporary Spanish-American Culture (3)

Fine Arts and Literature

Art 460 Pre-Columbian Art (3)

Art 480T Selected Topics in Art History (3)\*

Art 462 Latin American Art from 1800 to the 1950s (3)

Chicano 304 Music of Mexico (3) (Same as Music 304)

Chicano 336 Main Trends in Spanish-American Literature (3)

Chicano 430 Evolution of Mexican Literature (3)

Chicano 433 Mexican Literature Since 1940 (3)

Spanish 440 Spanish-American Literature to 1888 (3)

Spanish 441 Spanish-American Literature 1888 to Present (3)

Spanish 466 Introduction to Spanish Linguistics (3)

Spanish 485T Senior Seminar: Topics in Spanish-American Literature (3) (with consent of program coordinator)

History and Politics

History 451 Colonial Period of Latin America (3)

History 452 20th-Century Brazil (3)

History 453 History of Mexico (3)

History 454 19th Century Latin America: Era of Nation Building (3)

History 455 Latin America Since 1945 (3)

Poli Sci 430T\* Government and Politics of a Selected Nation-State (3)

Poli Sci 431T\* Government and Politics of a Selected Area (3)

Poli Sci 447 Revolutions in Latin America (3)

Poli Sci 452T\* Foreign Policy of a Selected Country or Group of Countries (3)

\*Latin American focus only.

Geography and Economics

Economics 333 Economic Development: Analyses and Case Studies (3)

Economics 334 Economics of Latin America and the Caribbean (3)

Geography 333 Latin America (3)

Latin American Studies

Latin Amer Studies 399 Directed Studies (1-3)

#### **MINOR IN LATIN AMERICAN STUDIES**

The minor in Latin American studies is designed to complement other majors for which a focus on Latin America can be beneficial (e.g., history, international business, communications, Spanish, economics and political science). Prospective secondary teachers may find this minor particularly attractive. The minor requires proficiency in either Spanish or Portuguese, as defined above for the major; 3 units of cultural history (History 350 or Spanish 316 or Portuguese 325); and 12 units of approved electives from at least three departments listed below:

Anthro 324A The Ancient Maya (3)

Anthro 324B The Aztecs and Their Predecessors (3)

Anthro 325 Peoples of South America (3)

Chicano 302 Ancient Mexican Culture (3)

Chicano 403 Cultural Differences in Mexico and the Southwest (3)

Chicano 430 The Evolution of Mexican Literature (3)

Chicano 433 Mexican Literature Since 1940 (3)

Chicano 440 Mexican Intellectual Thought (3)

Chicano 453 Mexico Since 1906 (3)

Economics 333 Economic Development: Analysis and Case Studies (3)

Economics 334 Economics of Latin America and the Caribbean (3)

Geography 333 Latin America (3)

History 451 Colonial Period of Latin

America (3)

History 452 20th-Century Brazil (3)

History 453 History of Mexico (3)

History 454 19th Century Latin America: Era of Nation Building (3)

History 455 Latin America Since 1945 (3)

Poli Sci 430T\* Government and Politics of a Selected Nation-State (3)

Poli Sci 431T\* Government and Politics of a Selected Area (3)

Poli Sci 447 Revolutions in Latin America (3)

Poli Sci 452T\* Foreign Policy of a Selected Country or Group of Countries (3)

Portuguese 310 Portuguese in the Business World (3)

Portuguese 325 Contemporary Brazilian
Civilization (3)

Spanish 310 Spanish in the Business
World (3)

Spanish 316 Introduction to Spanish-American Civilization (3)

Spanish 416 Contemporary Spanish-American Culture (3)

Spanish 441 Spanish-American Literature (3)

Spanish 485T Senior Seminar: Topics in Spanish-American Literature (3)

\*Latin American focus only.

### **LATIN AMERICAN STUDIES COURSE**

### 399 Directed Study (1-3)

Prerequisite: approval of program coordinator. Supervised individual or small group study as an elective. May be repeated for credit with different content.

# liberal

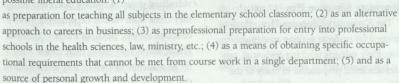
# studies

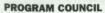
### INTRODUCTION

Liberal Studies is an interdisciplinary program that integrates concepts from the humanities and arts, the natural sciences, and the social sciences. Some core courses trace the historical development of these areas of knowledge in their intellectual and cultural context. The broad framework of these courses will enable students to see the whole range of human knowledge. Other core courses compare and contrast the methods and underlying assumptions of the

humanities and arts, the natural sciences, and the social sciences, and explore the ways in which these disciplines communicate. The critical thinking and communication skills these courses develop provide students with the self-confidence that comes from being able to express one's ideas clearly and effectively both orally and in writing. The core courses use a combination of lecture, discussion, and seminar to make the student not only a wellrounded, well-educated person, but also a more independent thinker and a more creative human being.

The major in Liberal Studies is designed for students who desire the broadest possible liberal education: (1)





Allan Axelrad (American Studies), Gaylen Carlson (Geological Sciences), Ronald Clapper (Coordinator), Gerald Gannon (Mathematics), Jane Hipolito (English and Comparative Literature), James Hofmann (Philosophy), Stewart Long (Economics), Claire Palmerino (Careers in Teaching), Tom Savage (Elementary and Bilingual Education), Terri Snyder (Liberal Studies), Bradley Starr (Comparative Religion), Bruce Weber (Chemistry), James Woodward (History)

### **AWARDS IN LIBERAL STUDIES**

The Outstanding Elementary Education Plan Student Award and the Outstanding Thematic Plan Student Award go to the outstanding graduating senior in each plan.

### **MULTIPLE SUBJECT MATTER PREPARATION PROGRAM**

In addition to completing their B.A. in Liberal Studies, students seeking a Multiple Subject (Elementary) Credential need to enter a state-approved Multiple Subject Credential Program. As part of the Multiple Subjects Credential Program requirements, students must either (1) com-

### PROGRAM COORDINATOR:

Ronald Clapper

### PROGRAM OFFICE:

Education Classroom 622

### **PROGRAMS OFFERED**

Bachelor of Arts in Liberal Studies

### **FACULTY**

Ronald Clapper, Terri Snyder

### **ADJUNCT FACULTY**

Cornel Bonca (English and Comparative Literature), Jane Hipolito (English and Comparative Literature), James Hofmann (Philosophy), George Saint-Laurent (Comparative Religion), Howard Seller (English and Comparative Literature), Bradley Starr (Comparative Religion), Bruce Weber (Chemistry and Biochemistry), James Woodward (History)

### **ADVISERS**

Ronald Clapper, Gerald Gannon, James Hofmann, Terri Snyder, Bradley Starr plete an approved Multiple Subject Matter Preparation Program at CSUF or another institution or (2) take the state-approved exam based on the content of the Multiple Subject Matter Preparation Program. Students intending to meet the CSUF Multiple Subject Matter Preparation Program requirements while they are taking course work in the Liberal Studies major will need to consult with a liberal studies adviser.

### BACHELOR OF ARTS IN LIBERAL STUDIES

The 24 units of core courses are required of all majors. In addition, students must take the 27-unit option under either the Elementary Education Plan or the Thematic Plan. Each course counted for the major must be completed with a grade of C or higher.

### Core Courses (24 units)

Speech Communication 301 Liberal Studies in Communication Processes (3)

History 302A Historical Dimension of Liberal Studies (3)\*

History 302B Historical Dimension of Liberal Studies (3)\*

Liberal Studies 303 Liberal Studies in the Humanities and Arts (3)

Liberal Studies 304 Liberal Studies in the Sciences (3)

Liberal Studies 305 Liberal Studies in the Social Sciences (3)

Philosophy 401 Knowledge in the Arts and Sciences (3)

One of the following Senior Seminars:

Liberal Studies 485 Senior Seminar in Cultural Diversity (3)

Liberal Studies 486 Senior Seminar in Humanities and Arts (3)

Liberal Studies 487 Senior Seminar in Evolution and Creation (3)

Liberal Studies 488 Senior Seminar in Environmental Studies (3)

Liberal Studies 489 Senior Seminar in Gender Issues (3)

Liberal Studies 490 Senior Seminar in Great Books (3)

Sequence of Core Courses

Because the core curriculum is designed as an integrated whole and builds upon the student's general education, there is an order in which these courses need to be taken and there are certain prerequisites for them. Liberal Studies in Communication Processes and the Historical Dimension of Liberal Studies come first. The only prerequisite for Speech Communication 301 is the completion of General Education Category I. History 302A requires completion of GE II.A, but transfer students who have not had a course in world history will be able to take History 110A (110B) and 302A (302B) concurrently. History 302A is a prerequisite for History 302B.

History 302B is a prerequisite for Liberal Studies 303, 304, and 305 because Liberal Studies in the Humanities and Arts, Liberal Studies in Science, and Liberal Studies in the Social Sciences pick up the historical developments where History 302B leaves off. Since the courses in these three areas also integrate what the student has learned from general education, completion of GE III.B.1&2 (including Music 101 or an equivalent background in basic music theory) is required for Liberal Studies 303; completion of GE III.A.1&2 is required for Liberal Studies 304; and completion of III.C.1 is required for Liberal Studies 305.

Knowledge in the Arts and Sciences and the Senior Seminar come last. Philosophy 401 requires the completion of Liberal Studies 304 and either Liberal Studies 303 or Liberal Studies 305. The Senior Seminar requires senior standing, the completion of 90 units of college work. Some of the senior seminars have additional prerequisites. Students may take whichever senior seminar they prefer.

### Elementary Education Plan (27 units)

The Elementary Education Plan, which is designed for students seeking an elementary or multiple subjects teaching credential, provides academic preparation in many of the subject areas taught in the elementary school. English 301 Advanced College Writing (3)\*\* English 303 The Structure of Modern English (3)\*\*

One of the following courses in world literature:\*\*

English 110 or 111, Comparative Literature 324 or 325.

English 433 Children's Literature (3)

OR Theatre 411 Oral Interpretation of Children's Literature (3)\*\*

Mathematics 303A,B Fundamental Concepts of Elementary Mathematics (3,3)\*\*

Science Ed 410 Physical Science Concepts (3)

OR Science Ed 453 Life Science Concepts (3)\*\*

One of the following courses in Cultural Diversity in the Social Sciences:\*\*

Afro-Ethnic 309, 310, 311; American Studies 301, 450; Anthropology 450, Chicano 305, 431; Sociology 431, Speech Comm 320.

One of the following courses in Visual and Performing Arts:\*\*

Art 380, Dance 471, Music 333, 433, Theatre 402A.

\*These courses will also count toward meeting the upper-division requirement for general education.

\*\*In exceptional cases substitutes may be made with the approval of the program coordinator.

### Thematic Plan (27 units)

The Thematic Plan is designed for students who have broad interests that expand beyond the confines of a single department. For these students, the ability to construct their own area of interdisciplinary study by taking advanced course work in several disciplines may be more beneficial than restricting their study to one of the various majors offered by the university. The Thematic Plan does not duplicate any existing major, and does not consist of a random collection of courses. It is a well-thought-out, highly individualized group of courses that, even though they come from various departments, have a common subject, focus, or interest. Thematic Plan students may center their course work on an academic interest or may select courses that prepare them for later professional training or for specific careers.

Upper-Division Writing Course (3 units)
English 301 Advanced College Writing (3)

With the approval of a liberal studies adviser, students may substitute one of the upper-division writing courses that the University Board on Writing Proficiency has approved for other majors if it is more relevant than English 301 to the student's personalized coordinated program.

The Personalized Coordinated Program

Students are allowed to select, in consultation with a liberal studies adviser, 21 units of upper-division course work from various departments for the purpose of pursuing an interdisciplinary problem, theme, or issue. To ensure breadth of knowledge, students are allowed to take (a) no more than 9 units from a single department and (b) no more than 15 units from a single area of knowledge (humanities and arts, science, social sciences). Students should have their study plan approved by a liberal studies adviser prior to taking course work.

### The Senior Project (3 units)

To aid Thematic Plan students in integrating and synthesizing the knowledge from the specially selected courses in their personalized coordinated program, they will be required to complete a senior project (such as a thesis or a creative work) by enrolling in three units of independent study (499) under a professor of their own choosing. Since that professor will be responsible for evaluating the project, students sign up for independent study in that professoris department. Before asking a professor to direct their project, students should see a liberal studies adviser for help in preparing a project proposal. Once the professor who has agreed to direct the project has signed the project proposal form, a liberal studies adviser must also sign the proposal form, indicating that the project is relevant to the personalized coordinated program.

### LIBERAL STUDIES COURSES

### 303 Liberal Studies in the Humanities and Arts (3)

Prerequisites: Music 101 or equivalent, History 302B, and completion of the General Education requirement III.B.2. An interdisciplinary approach to the humanities and arts which examines their purposes, structures and major developments in the 20th century.

### 304 Liberal Studies in the Sciences (3)

Prerequisites: History 302B and completion of the General Education requirement III.A.1. and 2. An interdisciplinary introduction to the character and aims of 20th century science, current theories and knowledge, and the role of science and technology in contemporary society.

### 305 Liberal Studies in the Social Sciences (3)

Prerequisites: History 302B and completion of the General Education requirement III.C.1. An interdisciplinary introduction to modern social science in which major thinkers, ideas, movements and problems will be approached historically, comparatively and analytically.

### 485 Senior Seminar in Cultural Diversity (3)

Prerequisites: senior standing, Liberal Studies 305, and completion of General Education cultural diversity requirement. An intensive interdisciplinary study of the historical and cultural experiences of racial and ethnic groups in America. Emphasizes student-led discussions.

### 486 Senior Seminar in Humanities and Arts (3)

Prerequisites: senior standing and Liberal Studies 303. Intensive interdisciplinary study of selected topics in the humanities and arts. Integrates and builds upon previous classes in Liberal Studies and emphasizes student-led discussions.

### 487 Senior Seminar in Evolution and Creation (3)

Prerequisite: senior standing and History 302B. An interdisciplinary examination of the relationship between evolutionary biology and the theology of divine creation. Traces the development of both perspectives from the pre-Darwinian period to the modern era. Emphasizes critical reading of texts and student-led discussions.

### 488 Senior Seminar in Environmental Studies (3)

Prerequisite: senior standing and Liberal Studies 304 or 305. An interdisciplinary seminar involving the examination and analysis of environmental problems from the perspectives of the natural sciences and the social sciences. Students participate in class discussions and write papers on environmental topics.

### 489 Senior Seminar in Gender Issues (3)

Prerequisites: senior standing and Liberal Studies 305. Intensive interdisciplinary study of gender issues in the modern period. Emphasizes student-led discussions.

### 490 Senior Seminar in Great Books (3)

Prerequisites: senior standing and History 302A,B. Intensive study of important books from early civilization to the present.

Develops critical reading of texts, clear expression of ideas and integration of knowledge. Emphasizes student-led discussions.

# linguistics

### PROGRAM COORDINATOR:

Angela Della Volpe

### PROGRAM OFFICE:

University Hall 322

### LABORATORY FOR PHONETIC RESEARCH:

University Hall 417

### **PROGRAMS OFFERED**

Bachelor of Arts in Linguistics

Minor in Linguistics

Master of Arts in Linguistics

#### **FACULTY**

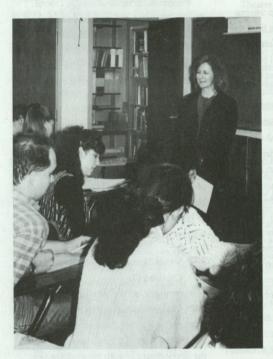
Nancy Baden (Foreign Languages), Juan Carlos Gallego (Foreign Languages), Angela Della Volpe (English), Janet Eyring (Foreign Languages), Ronald Harmon (Foreign Languages), Alan Kaye (English), Kurt P. Kitselman (Speech Communication), Thomas P. Klammer (English), Edith C. Li (Speech Communication), Keiji Matsumoto (Foreign Languages), Maria Montaño-Harmon (Secondary Education), Franz Müller-Gotama (English), James Santucci (Religious Studies), William R. Smith (Psychology), Nobuko Sugamoto (Foreign Languages), Arden Thorum (Speech Communication), Richard Lee Wiseman (Speech Communication)

#### **ADVISERS**

Undergraduate: Franz Müller-Gotama Graduate: Alan Kaye

#### INTRODUCTION

Linguistics is the study of language. Like other rapidly developing fields, linguistics resists simple classification into one of the traditional categories of academic disciplines. As one of the humanities, linguistics is concerned with the historical development of a particular language or language family. As a social science, linguistics may be related to anthropology in describing language as part of culture; or it may be related to psychology in describing phonetics; it may even



be considered a natural science, related to the physical science of acoustics and the biological sciences of anatomy and physiology. As an applied science, linguistics has found many applications in fields as far apart as language pedagogy, speech therapy, and computer programming. Finally, linguistics may be considered a formal science in its own right, related to mathematics and logic.

The interdisciplinary aspects of this study are reflected in the organization of the program which offers a core of general linguistics courses and draws upon linguistically related courses in other departments.

Graduates use the major in linguistics for a liberal arts base in language related fields. With advanced work, they enter teach-

ing, language research, translation, and linguistic field work, as well as such professional fields as law or such applied fields as teaching English as a second language.

The Bachelor of Arts is for students with an exceptional interest in and aptitude for the study of the systems of human communication. The essential relationships between language and thought and language and culture, the structure of foreign languages as well as English, the historical study of language, and formal techniques and methodologies are the theoretical foundations of linguistic analysis.

The M.A. in Linguistics builds upon a foundation of undergraduate study in linguistics and such allied areas, as foreign languages, English language, anthropology, speech communication and related areas in psychology and philosophy. The program emphasizes strong preparation in a core of general linguistics and offers the opportunity to specialize in one of several areas.

The relationship between linguistics and other disciplines and the application of the techniques, findings and insights of that science to such activities as language teaching are treated in interdisciplinary courses and seminars.

### Student Awards

Each year the program honors an outstanding undergraduate student with the Award for Excellence in Undergraduate Linguistics. The Patricia Bruner Memorial Award is awarded annually to a student in the M.A. program in recognition of a distinguished graduate project selected for publication in the program's Seminar Paper Series.

#### BACHELOR OF ARTS IN LINGUISTICS

#### Language Requirement

Linguistics majors are required to take two progressive semesters of any two languages or four progressive semesters of any one language.

#### Core Requirements (15 units)

Linguistics 351 Introduction to Linguistic Phonetics and Phonology (3)

Linguistics 406 Descriptive Linguistics (3)

Linguistics 408 Syntax (3)

Linguistics 412 Sociolinguistics (3)

Linguistics 430 Historical Linguistics (3)

#### Electives (18 units)

Two must be from linguistics upper-division courses other than those listed as required above; and four may be selected from linguistics upper-division courses or from the courses listed below:

Child/Adolescent Studies 312 Human Growth and Development (3)

English 303 The Structure of Modern English (3)

English 440 History of the English Language (3)

Foreign Languages, any upper division course (3)

Philosophy 368 First Course in Symbolic Logic (3)

Psychology 415 Cognitive Processes (3)

Students must consult with an adviser in linguistics before establishing their individual programs of study. Other courses in the university may be taken as electives with the permission of the adviser.

#### MINOR IN LINGUISTICS

The minor in linguistics provides a solid introduction to the scientific study of language for students in a related major field. Students are required to take: Linguistics 106, Linguistics 351 and Linguistics 406. In addition, 12 units in elective courses selected with the approval of the undergraduate adviser are required. It is thus possible to tailor the minor to individual needs in rounding out a course of study in the student's major area of specialization.

#### LABORATORY OF PHONETIC RESEARCH

The Laboratory houses the program's sound spectrograph, recording equipment, and an extensive collection of tape recordings of lesser known languages and dialects. It is also the editorial home of the California Linguistic Notes.

#### **MASTER OF ARTS IN LINGUISTICS**

#### Admission to Graduate Standing: Conditionally Classified

Requirements include a bachelor's degree from an accredited institution and a minimum GPA of 2.50 in the last 60 semester units attempted.

#### Graduate Standing: Classified

Classified graduate standing requires a bachelor's degree in Linguistics or a related field from an accredited institution with at least 3.0 grade-point average in the major courses provided that a minimum of 24 units of upper-division course work is included. If the student holds a bachelor's degree in a major other than Linguistics, 24 units of upper-division course work in Linguistics with a minimum of 3.0 grade-point average must have been completed. Included among the 24 units of course work must be the following courses or their equivalents:

Linguistics 351 Introduction to Linguistic
Phonetics and Phonology (3)

Linguistics 406 Descriptive Linguistics (3)

Linguistics 408 Syntax (3)

Linguistics 412 Sociolinguistics (3)

Linguistics 430 Historical Linguistics (3)

A student who has not completed one or more of the preceding four courses may enroll in the required course(s) concurrently with graduate course work in the program. If the student lacks the prerequisite number of Linguistics courses, they must be made up before commencing the master's degree program, with at least a 3.0 GPA in such makeup course work. In the event that the student's GPA in prerequisite Linguistics courses is less than 3.0, six to nine units of probationary, adviser-approved course work may be assigned. If the GPA in these probationary courses is 3.0 or better, the student may be classified. Some courses taken to make up qualitative deficiencies may be credited toward the M.A., if completed with a grade of B or better, and if applicable to the

student's particular study plan. Courses taken to remove quantitative deficiencies may not be applied to the M.A. program.

Knowledge of one foreign language is required (equivalent of Foreign Languages 317 course). Students without course work in a foreign language may demonstrate proficiency by a score of average or better on the MLA-ETS Proficiency Examination for Advanced Students. Work toward fulfillment of this requirement may be taken concurrently with graduate work in linguistics.

Modifications of certain prerequisite requirements may be permitted in exceptional circumstances.

A study plan must be developed and approved for admission to classified graduate standing.

#### Study Plan Requirements

Courses in Descriptive and Historical Linguistics (15 units)

Linguistics 501 Research Methods and Bibliography (3)

Linguistics 505 Phonological Analysis (3)

Linguistics 507 Grammatical Analysis (3)

Linguistics 508 Theories of Syntax (3)

Linguistics 530 Graduate Seminar: Historical Linguistics (3)

#### Specialized Electives (9 units)

Course work selected from any one of the following six areas of specialization, including other courses in the university with the approval of the adviser:

Applied Linguistics

English 303 Structure of Modern English (3)

FL-Ed 468 TESOL Contrastive Analysis (3)

FL-Ed 470 Pedagogical Grammar in TOESL (3)

FL-Ed 527 Theory of Bilingual Language Acquisition (3)

FL-Ed 560 Second Language Assessment (3)

French 466 Introduction to French
Linguistics (3)

French 599 Independent Graduate

Research (1-3)

German 466 Introduction to German
Linguistics (3)

German 599 Independent Graduate Research (1-3)

Linguistics 305 English Language in America (3)

Linguistics 307 Speech/Language Development (3)

Linguistics 416 Anthropological Linguistics (3)

Linguistics 443A,B Principles of Teaching English to Speakers of Other Languages (3)

Linguistics 580T Special Topics in Linguistics (3)

Linguistics 599 Independent Graduate Research (1-3)

Spanish 466 Introduction to Spanish Linguistics (3)

Spanish 467 Dialectology: Current Trends in Modern Spanish (3)

Spanish 468 Spanish-English Contrastive Analysis (3)

Spanish 599 Independent Graduate Research (1-3)

Anthropological Linguistics

Anthro 599 Independent Graduate Research (1-3)

FL-Ed 468 TESOL Contrastive Analysis (3)

Linguistics 416 Anthropological Linguistics (3)

Linguistics 599 Independent Graduate Research (1-3)

Analysis of Specific Language Structures

FL-Ed 468 TESOL Contrastive Analysis (3)

French 466 Introduction to French Linguistics (3)

German 466 Introduction to German Linguistics (3)

Japanese 466 Introduction to Japanese Linguistics (3)

Spanish 466 Introduction to Spanish Linguistics (3)

Japanese 468 Japanese-English Contrastive Analysis (3)

French 500 Graduate Seminar: Advanced Structure and Style (3)

German 500 Graduate Seminar: Advanced Structure and Style (3)

Spanish 500 Graduate Seminar: Advanced Structure and Style (3)

French 530 Graduate Seminar: Historical Linguistics (3)

German 530 Graduate Seminar: Historical Linguistics (3)

Spanish 530 Graduate Seminar: Historical Linguistics (3)

English 580T Special Topics in Linguistics (3)

English 599 Independent Graduate Research (1-3)

Spanish 599 Independent Graduate Research (1-3)

French 599 Independent Graduate Research (1-3)

German 599 Independent Graduate Research (1-3)

Linguistics 580T Special Topics in Linguistics (3)

Linguistics 599 Independent Graduate Research (1-3)

Communication and Semantics

Anthro 599 Independent Graduate Research (1-3)

Linguistics 375 Introduction to Philosophy of Language (3)

Linguistics 416 Anthropological Linguistics (3)

Linguistics 417 Psycholinguistics (3)

Linguistics 599 Independent Graduate Research (1-3)

Speech Comm 599 Independent Graduate Research (1-3)

Disorders of Communication

Linguistics 307 Speech/Language Development (3)

Linguistics 369 Language, Sex Roles, and the Brain (3)

Linguistics 417 Psycholinguistics (3)

Linguistics 599 Independent Graduate Research (1-3)

Speech Comm 461 Audiology and Audiometry (3)

Speech Comm 472 Voice and Craniofacial Disorders (3)

Speech Comm 475 Fluency Disorders (3)

Speech Comm 599 Independent Graduate Research (1-3)

Linguistics or a Related Field Elective (3 units)

#### Linguistics 597 Project (3 units)

A minimum of 15 units in 500-level courses is required. Satisfactory completion of a written comprehensive examination is required at the conclusion of the program.

The examination may be repeated only once.

A reading list for the examination and specifications for the project are available in the program office.

For further information, consult the graduate adviser.

#### LINGUISTICS COURSES

105 Language, Culture and Thought (3) (Same as Anthro 105)

#### 106 Language and Linguistics (3)

The nature of language, its origin and development; language in culture, the structure of language and its systems of writing and transcription, and its application to other areas of humanistic and scientific knowledge.

#### 108 Linguistics and Minority Dialects (3)

The sounds, meanings and vocabulary of Afro-American, Chicano, and other English dialects and their historical origin. (Same as Chicano Studies 108 and Afro-Ethnic Studies 108)

#### 301 Sanskrit (3)

An introduction to the devanagari script as well as the phonology, morphology and syntax of the Sanskrit language. A reading knowledge of Sanskrit will be the main goal of the course. (Same as Religious Studies 301)

305 The English Language in America (3) (Same as English 305)

307 Speech/Language Development (3)
(Same as Speech Comm 307)

### 351 Introduction to Linguistic Phonetics and Phonology (3)

The nature and structure of sound systems in language: a thorough investigation of the International Phonetic Alphabet as applied to many different languages including English, Language Acquisition (L1) and Language Learning (L2); analytic methods and techniques.

#### 360 Nonverbal Communication (3)

Prerequisite: Linguistics 106 or Speech Comm 100. The physical actions, gestures and changes in the physiognomy that occur together with language and paralanguage in human communication; substitutions for language and modifications of it in varying cultures. (Same as Speech Comm 360)

### 369 Language, Sex Roles, and the Brain (3)

Examines how gender socialization is reflected in the structure and use of language and whether gender differences in language are biologically based or a consequence of sex roles.

### 375 Introduction to the Philosophy of Language (3)

(Same as Philosophy 375)

#### 406 Descriptive Linguistics (3)

A study of the sounds (phonology), forms and meanings (morphology), and syntax of languages. Examples and problem solving in various languages will be emphasized. (Same as Anthro 406)

#### 408 Syntax (3)

Prerequisite: one of the following: Linguistics 106, 406, or English 303. The study of sentence structure in human language. Practice in syntactic analysis in a variety of languages.

#### 412 Sociolinguistics (3)

Prerequisite: Linguistics 406 or equivalent. Social dialects in relation to the surrounding communities. Social stratification, acculturation, language maintenance, standardization, language planning and language change.

#### 416 Anthropological Linguistics (3)

(Same as Anthro 416)

#### 417 Psycholinguistics (3)

(Same as Psychology 417)

#### 430 Historical Linguistics (3)

Prerequisite: Linguistics 406, its equivalent, or consent of instructor. The comparative method in diachronic linguistic methodology and theory, graphemics, glottochronology, language families, dialect geography and internal reconstruction. Fulfills the course requirement of the university upper division baccalaureate writing requirement for linguistics majors.

#### 443A Principles of Teaching English to Speakers of Other Languages (3)

(Same as FL-Ed 443A)

#### 443B Principles of Teaching English to Speakers of Other Languages (3)

(Same as FLI-Ed 443B)

#### 492 Linguistic Fieldwork (3)

Prerequisites: Linguistics 351 or 406. Methodology and practice of linguistic analysis and language description as practiced in the field. Central is data collection and processing of a non-Indo-European linguistic structure using indigenous informants. May be repeated for credit.

#### 499 Independent Study (1-3)

Supervised projects with consent of program coordinator. Topic varies with the student. May be repeated for credit.

#### 501 Research Methods and Bibliography (3)

Prerequisites: graduate standing and Linguistics 406, or equivalent. Principal books, periodicals and collections in general linguistics, specific languages and related fields; techniques of preparing research papers and field reports in linguistics. Must be taken prior to Linguistics 597.

#### 505 Phonological Analysis (3)

Prerequisites: Linguistics 351 and 406 or consent of instructor. Phonological systems that occur in languages; emphasis on terminology used to describe changes in the system and processes affecting it; problem solving of selected language data. (Same as Anthropology 505)

#### 507 Grammatical Analysis (3)

Prerequisite: Linguistics 406 or consent of instructor. Word formation in a variety of languages with emphasis on the terminology used to describe morphological representation on various levels; problem solving of selected language data. (Same as Anthro 507)

#### 508 Theories of Syntax (3)

Prerequisite: Linguistics 408 or equivalent. Contemporary theories of grammar, such as transformational-generative, with emphasis on theoretical problems in the analysis of language structure. (Same as Anthropology 508).

#### 530 Graduate Seminar: Historical Linguistics (3)

Prerequisite: Linguistics 430, its equivalent or consent of instructor. The history of language, including principles and techniques for the historical study and classification of individual languages and language families, writing systems, lexicostatistical methods and linguistic geography.

#### 597 Project (3)

Prerequisite: Linguistics 501. Preparation and completion of an approved project.

#### 599 Independent Graduate Research (1-3)

Prerequisites: graduate standing and consent of program coordinator. May be repeated for credit.

## management

#### **DEPARTMENT CHAIR**

Gus Manoochehri

#### **DEPARTMENT OFFICE**

Langsdorf Hall 640

#### **PROGRAMS OFFERED**

Bachelor of Arts in Business
Administration
Concentration in Management
Master of Business Administration
Concentration in Management

#### **FACULTY**

Farouk Abdelwahed, Michael Ames, Thomas Apke, Mei Liang Bickner, Peng Chan, Ellen Dumond, Gamini Gunawardane, Esmeralda Garbi, Richard Houston, Thomas Johnson, Eonsoo Kim, Brian Kleiner, Elliot Kushell, Richard Kust, Gus Manoochehri, B. Thomas Mayes, James Nour, Tai Oh, Goli Sadri, Hamid Tavakolian, Laszlo Tihanyi, Gustavo Vargas

#### INTRODUCTION

Managers are needed in a wide variety of different types of organizations - business and non-business, large and small, foreign and domestic. In all of these organizations, managers need technical, human and conceptual skills to help achieve organizational goals.

Management courses are designed to teach the fundamental principles underlying organizations, to emphasize education which will improve students' thought processes, to provide famil-



iarity with the analytical tools of management, and to develop in the student an ability to use the techniques involved in analyzing and evaluating managerial problems and making sound decisions.

Students may pursue a wide variety of academic and career interests through four different emphases. These emphases include: (1) entrepreneurial management, (2) general management, (3) organization behavior/human resources management, and (4) operations management.

#### Credential Information

For students interested in a teaching credential, the Management Department offers courses which may be included in the Subject Matter Preparation and Supplementary Authorization Programs for secondary teaching.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department of Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education.

#### **ADVISERS**

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, the Management Department provides advising on career opportunities and on the emphases within the Management Concentration:

Entrepreneurial Management	Michael Ames
General Management	Farouk Abdelwahed
Organization Behavior/Human	
Resource Management	Elliot Kushell
Operations Management	Ellen Dumond
International Management	Tai K. Oh
Graduate Program	Farouk Abdelwahed

#### **AWARDS IN MANAGEMENT**

The Gus Berger Award/Operations
Management

The H. Peter Guertin/APICS Orange County Chapter Scholarship

The Orange County Industrial Relations Research Association (OCIRRA)

The PERMA Scholarship

### BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Management Concentration."

#### MASTER OF BUSINESS ADMINISTRATION

See "Business Administration,"
Management Concentration."

#### **MANAGEMENT COURSES**

#### 246 Business and Its Legal Environment (3)

Examines laws and regulations affecting the business environment and managerial decisions including the legal system and methods of dispute resolution. Topics include torts, crimes, contracts, product liability, business organization, employment, antitrust, environmental protection; incorporates ethical considerations and international perspectives. Uses case studies.

### 339 Principles of Management and Operations (3)

Prerequisites: all lower-division business core courses and Business Admin 301. Co-requisite: Manag Sci/Info Sys 361A.

Administrative processes in utility-creating business operations: decision-making; planning; controlling; supporting business information systems; measuring and improving effectiveness; production processes, production operations and institutions in American and worldwide business. Uses the Production Lab.

#### 340 Organizational Behavior (3)

Prerequisites: general education in social sciences. Co-requisite: Business Admin 301, Manag Sci/Info Sys 361A. Social and cultural environments of business. Business ethics. Communication, leadership, motivation, perception, personality development, group dynamics and group growth. Human behavior and organizational design and management practice in American and world wide business.

#### 343 Personnel Management (3)

Prerequisite: Business Admin 301,
Management 340 or equivalent. The personnel function, its activities, and its opportunities.
Management's responsibilities for selection, development and effective utilization of personnel. Open to non-business majors.

#### 345 Small Business Management (3)

Prerequisites: Accounting 201B, Management 339, Marketing 351. Practical applications of business administration techniques to the planning and operation of small businesses. Casework, research, and field work with selected, local small businesses.

#### 346 International Law for Business (3)

Prerequisite: Management 246 or equivalent. Study of the international legal environment in which firms operate. Case studies in the areas of treaties and laws, EU, NAFTA, international contracts, regulation of imports, exports and competition, government policies, enforcement of property rights and issues involving ethical responsibilities.

#### 347 Current Legal Issues (3)

Prerequisite: Business Admin 301,
Management 246 or equivalent. Work and
law, the development of employment law,
agency, responsibilities of managing officers,
the hiring process, discrimination, wages,
hours and benefits, termination. The work
environment, OSHA, worker's compensation.
International and ethical implications of
employment law. Patents, copyrights and
trademarks. Product/service liability; environmental law.

#### 348 Commercial Law (3)

Prerequisite: Management 246 or equivalent. The philosophy, institutions and role of law and ethical considerations in commercial transactions. Case studies in sales, storage and shipment of goods, commercial paper, debtor and creditor rights and remedies, bankruptcy, secured transactions and suretyship.

#### 349 Law for Small Business (3)

Prerequisite: Business Admin 301, Management 246. The philosophy, institutions, and role of law and their practical applications in the areas of interest to the small businessperson. Product liability, consumer rights, worker's compensation and other topics.

#### 350 International Management (3)

Prerequisites: Management 339 or Management 340. A survey course on business activities of firms across national boundaries. It includes sociocultural patterns, global logistics and sourcing, foreign investment and banking, technology transfer, and macroeconomic and regulatory environments. World regions and economic blocks are incorporated in the analysis.

### 355 Comparative Management - U.S. and East Asia (3)

Prerequisites: Management 339 or Management 340 or consent of instructor. Cross-cultural analysis of managerial characteristics and behavior between the United States and East Asia (Japan, South Korea, Hong Kong, Singapore, Taiwan). Focuses on the shared post-Confucian cultural values and environmental constraints which influence East Asia's management practices.

#### 421 Operations Systems Design (3)

Prerequisite: Manag Sci/Info Sys 361B.

Managerial problems associated with designing an operations system, including product and process design, facilities planning, capacity choice, job design, automation, quality management and maintenance.

#### 422 Production and Inventory Control (3)

Prerequisite: Manag Sci/Info Sys 361B.

Planning and controlling of production activities and inventory levels. Identification of key problem areas. Presentation of applicable techniques and systems, and organizational and managerial concepts. Utilization of computer decision models.

### 425 Productivity and Quality Management (3)

Prerequisites: Management 339 and Manag Sci/Info Sys 361A or equivalent. Definition, discussion and measurement of productivity and quality and their strategic role.

Development of a comprehensive approach to managing and improving productivity and quality, including strategic, organizational, operational and technological aspects. Case studies on productivity and quality in service and manufacturing operations.

#### 430 Integrated Logistics Management (3)

Prerequisite: Management 339 (or equivalent), Marketing 351 or consent of instructor. Study of managing the productive flow of materials throughout an organization from the acquisition of materials, capital, and services to the delivery of finished products and services to the final customer. Emphasis is placed on the development of strategies to synthesize the individual processes into a cohesive system.

#### 431 Women in Management (3)

Prerequisite: Management 340. (For men and women.) Increasing participation in the management of organizations. Employment and earnings, affirmative action, understanding male-female and female-female work relationships, dual careers, and learning how to increase one's effectiveness in organizations.

#### 433 Advanced Topics in Human Resource Management (3)

Prerequisite: Management 343.

Contemporary concepts and procedures in compensation and staffing. Current topics and controversial issues in human resource management are also covered.

### 435 Service Organizations and Operations (3)

Prerequisite: Management 339. Analysis and applications of general management and operations management concepts to service organizations, and interactions among various functional areas. Case analyses of banks, airlines, health care, food service and others. Includes field trips and use of computer labs and models.

#### 440 Emerging Issues in Management (3)

Prerequisites: Management 339 and 340 or consent of instructor. For upper-division and graduate students. Business and management in America. The interrelationships of technological, economic, political and social forces with the business enterprises and their ethical obligations to owners, employees, consumers and society at large. Open to non-business majors.

#### 441 Labor-Management Relations (3)

Prerequisite: Management 340. Impact of labor-management relations upon labor, management, and the public. Proper grievance procedure, collective bargaining and settlement of disputes.

#### 443 Group Dynamics (3)

Prerequisites: Management 339 and 340 or equivalent. Managerial skills in group dynamics as they relate to team performance. Cultural diversity including value differences and perception. Leadership; problem solving, idea generation, communications and conflict management. Organization change and designs that enhance team effectiveness.

#### 444 Project Management (3)

Prerequisites: management and management science/information systems core and other 300 level management courses in student's concentration. Technology for managing business and other enterprises as cybernetic systems. The design and control of systems appropriate for product, project and program levels of analysis. (2 hours lecture, 2 hours activity) Uses Production Lab.

#### 448 Seminar in Small Business Consulting (3)

Prerequisites: Management 339, Marketing 351 and senior standing. Explores advanced methods for cultivating fast growth and exceptional profitability in small business. Students learn by planning and working in a consulting relationship with small local businesses. Case analysis, research and field work.

#### 449 Seminar in Strategic Management (3)

Prerequisites: Business Admin 301, all other School of Business Administration and Economics core courses and departmental approval. Integrative cases from top management viewpoint. Administrative processes, ethical-legal-economic implications of business decisions, international applications; organization theory and policy formulation. Individual and team efforts.

#### 480 Global Strategic Management (3)

Prerequisites: Business Admin 301, completion of all other International Business core courses and departmental approval. This course deals primarily with the conceptualization, formulation, and implementation of successful global business strategies. Other topics include managing cultural differences, strategic alliances, and strategies for the Pacific Rim and Europe.

#### 495 Internship (1-3)

Prerequisites: six units of upper-division management courses, including Management 339, concentration in management or international business, consent of department internship adviser and at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

#### 499 Independent Study (1-3)

Prerequisites: senior standing and approval by department chair. Open to qualified students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

### 515 Management of Information in the Corporate Environment (3)

Prerequisite: Classified SBAE status. Review and application of management information systems in business. System planning, system design and analysis, use of files, decision support systems, expert systems, and implementation of management information systems.

#### 516 Organizational Theory and Management of Operations (3)

Prerequisites: classified SBAE status, Manag Sci/Info Sys 514 (may be taken concurrently), Accounting 510, Economics 515. Modern organization theory and application in utility-creating operations. Interpersonal behavior, planning, control, organizing, directing, communication, production and information systems, and measures of effectiveness. International applications. Business ethics and relationships to society and politics. Graduate discussion and research reports.

#### 518 Legal Environment of Business (3)

Prerequisite: classified SBAE status. Law applicable to business institutions and inherent in business decisions with consideration of the ethical, social and political influences as they affect business organizations and operations both here and abroad; nature and sources of law, the judicial system and case studies in areas of enforceable agreements, products liability, employment, business organizations and trade regulation.

#### 524 Seminar in Organizational Behavior & Administration (3)

Prerequisites: classified SBAE status, Management 516 and 518 or equivalent. Human behavior in organizations, studies in organizational theories, and administrative action.

#### 525 Team Leadership Skills (3)

Prerequisite: Management 524 or equivalent (with instructor's consent). Graduate seminar and workshop to develop hands-on leadership skills to manage high-performance work teams. Topics include methods for selfawareness, making oral presentations, interviewing, stress management, supportive communication, problem solving, influencing and motivating others, managing conflict, empowering, delegating, and team building.

#### 535 Production/Operations Management 3)

Prerequisites: Management 516 and Manag Sci/Info Sys 514. An in-depth study of selected POM topics. Discussions of the operations function role and its importance, identification of the problem areas, and reviewing of the related concepts and techniques, including computer applications.

Emphasizing the current POM topics of interest to top management.

#### 542 Seminar in Labor-Management Relations (3)

Prerequisites: classified SBAE status,
Management 516 and 518. A seminar that
focuses on various aspects of the labor-management relationship, issues in collective bargaining, the laws governing the relationship,
contract administration, grievance handling,
dispute settlement and arbitration.
Negotiation simulation and case analyses.

### 543 Seminar in Personnel Administration (3)

Prerequisites: classified SBAE status, Management 516 and 518, or equivalent. Cases, problems and significant personnel administration literature in personnel administration and human relations.

#### 547 Comparative Management (3)

Management practices and processes in five geographical areas; market-structures and management characteristics different from those in the United States. Constraints which vary between countries because of cultural, legal, economic and/or political differences.

#### 581 Entrepreneurship and New Ventures (3)

Prerequisite: classified SBAE status and all MBA foundation coursework except Business Admin 590. Advanced application of business administration technique for the planning, financing, capitalization and operation of emerging, fast growth business. Casework, research and fieldwork with selected local businesses.

#### 599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status, consent of instructor, consent of department chair and associate dean. May be repeated for credit. Not open to students on academic probation.

## management science/ INTRODUCTION

#### **DEPARTMENT CHAIR:**

Barry A. Pasternack

#### **DEPARTMENT OFFICE:**

Langsdorf Hall 540

#### **PROGRAMS OFFERED**

Bachelor of Arts in Business Administration

> Concentration in Management Information Systems

Concentration in Management Science

Minor in Management Information

Master of Business Administration

Concentration in Management Science/Information Systems

Master of Science in Management Science

Concentration in Logistics Management

Concentration in Management Information Systems

Concentration in Operations Research

Concentration in Statistics

Management information systems are computer-based information systems. These systems aid management in making decisions and assist in implementing and controlling management policies. Management information systems are used in business, industry and government operations. Applications include airline reservations, banking transactions, crime prevention networks, election returns, real estate assessment, tax records, newspaper databases, sports statistics, and

computer assisted learning.

Management information systems incorporate the use of data processing equipment, such as computers and their peripherals. Computer software is used to create, maintain and retrieve information. Techniques include mathematical modeling and statistics, integrated with modern computer technology. These methods are applied to systems management, programming design, analysis of information flow, decision support, database organization, small business problems, data communication networking, and distributed processing.

Management Science is the application of the scientific method to decision-making in business and government. In practice, nearly all management

science problems involve solutions using computers. Operations research uses mathematical and simulation models to provide decision-makers with quantitative information pertaining to complex business situations. Statistics assists decision-makers by using techniques designed to draw inferences from experimental and sampling data.

Situations that require operations research techniques arise in all areas of business: accounting, finance, production, marketing, and research and development. Among the problems addressed by operations research techniques are the determination of inventory strategies, the allocation of scarce resources and the design of service systems. Others include bidding in competitive environments, selection of equipment replacement strategies, and scheduling the completion of large projects.

The statistician is often involved in activities such as sales forecasting, quality control and financial analysis. Statistics is also concerned with model building and the design of experiments dealing with product testing, surveys and sampling.

Logistics is concerned with the movement of materials and finished goods. It encompasses such areas as inventory control, transportation, purchasing, warehouse management, and information support systems. Logistical control is an important component of the success of most manufacturing and service enterprises. It is also used extensively in complex organizations such as the airline companies and the military.



#### FACULTY

Shu-Jen Chen, Roger Dear, Zvi Drezner,
Ben Edmondson, Nicholas Farnum, Zvi
Goldstein, S. Hanizavareh, William
Heitzman, James Hightower, Bhushan
Kapoor, Mabel Kung, Bharat Lakhanpal,
William Lau, John Lawrence, George
Marcoulides, Do Le Minh, Barry Pasternack,
Sorel Reisman, Herbert Rutemiller, Joseph
Sherif, Sohan Sihota, Ram Singhania, Ronald
Suich

#### **ADVISERS**

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, the Management Science/ Information Systems Department provides advising about curriculum content and career opportunities.

Graduate Program: Barry Pasternack

Information Systems: Roger Dear, Bhushan Kapoor, Mabel Kung, Bharat Lakhanpal, Sorel Reisman, Joseph Sherif, Ram Singhania

Operations Research: Shu-Jen chen, Roger
Dear, Zvi Drezner, Zvi Goldstein, Seyed
Hanizavareh, William Lau, John
Lawrence, Do Le Minh, Barry Pasternack,
Joseph Sherif

Statistics: Nochilas Farnum, William Heitzman, James Hightower, George Marcoulides, Sohan Sihota, La Verne Stanton, Ronald Suich

Logistics Management: Zvi Drezner, Zvi Goldstein, Barry Pasternack, Joseph Sherif

#### **CREDENTIAL INFORMATION**

For students interested in a teaching credential, the Department of Management Science/Information Systems offers courses which may be included in the Subject Matter Preparation Program for the Single Subject Teaching Credential.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department of Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education, Education Classroom 207.

### AWARDS IN MANAGEMENT SCIENCE/INFORMATION SYSTEMS

David S. Stoller Outstanding Management
Science Undergraduate Award
Outstanding Management Information
Systems Undergraduate Award
Outstanding Management Science Graduate

### BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Management Information Systems Concentration."

Student Award

See "Business Administration,"
Management Science Concentration."

### MINOR IN MANAGEMENT INFORMATION SYSTEMS

See "Business Administration, Minor in Management Information Systems."

#### MASTER OF BUSINESS ADMINISTRATION

See "Business Administration, Management Science/Information Systems Concentration"

### MASTER OF SCIENCE IN MANAGEMENT SCIENCE

The Master of Science in Management Science program provides the conceptual understanding and technical competence for careers in management information systems, statistics/operations research and/or logistics. Emphasis is placed on the use of scientific method to allocate resources so as to maximize profit or minimize cost. Concentrations include management information systems, and statistics/operations research, and logistics. These techniques are widely used in both private business and public enterprise. Employment opportunities include positions such as management analyst, data processing manager, statistician, forecaster, and logistical support manager.

The M.S. in Management Science program is scheduled especially for students who are employed full-time. Courses are offered during the late afternoon and evening.

The curriculum should appeal to students with undergraduate degrees in business administration, computer science, mathematics, engineering, or science. For students with an undergraduate degree in business

administration, the 10-course (30-unit) curriculum may be completed in 2 1/2 years (part time). In addition to three required courses (four for MIS), the curriculum includes courses in systems management information and management science applications, electives, and a capstone course which includes a terminal project. Students with a bachelor's degree in a field other than business administration must first complete the M.B.A. Foundation Courses (27 units) or equivalent undergraduate courses.

Cal State Fullerton is accredited by the American Assembly of Collegiate Schools of Business at both the undergraduate and graduate level. This assures a rigorous program, a well-qualified faculty, high standards for students, and access to an extensive library system. The qualifications of the M.S. in Management Science faculty include advanced degrees in information systems, operations research, statistics and applied mathematics; extensive computer experience; and practical experience in business, industry and government. Cal State Fullerton is the only campus within The California State University offering an M.S. in Management Science.

Most graduate courses in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.S. in Management Science, M.S. in Taxation, M.A. in Economics, M.B.A. or M.S. in Accountancy programs.

Students meeting the following requirements will be admitted to post-baccalaureate-unclassified standing:

- Acceptable bachelor's degree from an institution accredited by a regional accrediting association, or equivalent.
- Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at last college attended.

Postbaccalaureate-unclassified students may enroll in undergraduate courses (100 through 400 level) but are generally ineligible for graduate business courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Postbaccalaureate/Graduate Change of Academic Objective" requesting admission to

the M.S. in Management Science program.

Admission to the university as a postbaccalaureate-unclassified student does not constitute admission to the M.S. in Management
Science program, does not confer priority,
nor does it guarantee future admission.

Students planning to apply for admission to
the M.S. in Management Science program
should confer with the graduate adviser in
the School of Business Administration and
Economics.

Students meeting the following departmental requirements will be admitted to the M.S. in Management Science program with conditionally classified standing:

- 3. Combination of grade-point average and score on the Graduate Management Admission Test (GMAT) sufficient to yield a score of at least 1000 according to one of the following formulas. Due to limited facilities and resources in the School of Business Administration and Economics, a higher score may be required of all applicants.
  - A. If overall undergraduate GPA is at least 2.7 and GMAT is at least 450, then score = (GPA x 200) + GMAT.
  - B. If overall undergraduate GPA is below 2.7 or GMAT is below 450, then score = (GPA x 200) + GMAT -50.
- A score in the top 50 percent on the verbal, analytical and quantitative areas of the GMAT. Students who do not reach this level are required to complete a department approved course(s).
- 5. For international students a TOEFL score of 570. A student scoring between 550 and 570 may be admitted conditionally depending upon an evaluation of the entire application file. The student may be required to complete a department approved course(s).

Conditionally classified students may take a limited number of graduate courses (500 level) subject to the approval of the graduate adviser of the School of Business Administration and Economics. Students may take whatever courses are necessary to fulfill requirement 4 (below) while enrolled as conditionally classified students. In addition, a maximum of 9 units (three courses) from the M.S. in Management Science curriculum may be taken while in conditionally classified standing.

- Students meeting the following additional requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they are qualified.
- 6. A bachelor's degree with a major in business administration which meets the requirements stated in this catalog for such degrees. The degree must include calculus and computer programming equivalent to passing Mathematics 135, Business Calculus (3 units), and Manag Sci/Info Sys 265 Introduction to Computing and Programming Concepts (3 units), with grades of at least C. Courses in the major are to be no more than seven years old, and must have at least a 3.0 GPA. Courses with grades lower than C must be repeated with at least a C grade. Applicants with a bachelor's degree in a field other than Business Administration may meet this requirement by passing the courses in calculus and computer programming (above) with grades of at least C, and also the Foundation Courses within the curriculum of the Master of Business Administration (27 units, including Accounting 510; Business Admin 590; Economics 515; Finance 517; Management 515, 516, 518; Manag Sci/Info Sys 513, and Marketing 519). The MBA Foundation Courses must have at least a 3.0 GPA; Foundation Courses with grades lower than a C must be repeated with at least a C grade.
- 7. Approval of study plan.

#### CURRICULUM

The curriculum requires 30 semester units of course work beyond the baccalaureate degree. At least 21 of the 30 units required for the degree must be at the graduate level. A 3.0 (B) GPA (B) is required in study plan courses and all applicable course work. Any study plan course with a grade lower than C must be repeated with at least a C grade.

The requirement for a concentration is to satisfactorily complete at least 15 units of courses (required and/or elective) in a specified field: Logistics, Management Information Systems, or Operations Research and Statistics. A concentration is not required for the degree.

### CONCENTRATION IN LOGISTICS MANAGEMENT

Required Courses (9 units)

Manag Sci/Info Sys 516 Analytical Techniques in Logisticism (3)

Manag Sci/Info Sys 526 Forecasting,
Decision Analysis and Experimental
Design (3)

Manag Sci/Info Sys 550 Special Topics on Information (3)

Application Course (3 units)

Management 444 Project in Management (3)

### Electives in Logistics Management (15 units-at least 9 units in MSIS courses)

Five courses (15 units) to be selected in consultation with, and approved by, the student's adviser:

Electives from Manag Sci/Info Sys (Minimum of 9 units)

Manag Sci/Info Sys 415 Decision Support and Expert Systems (3)

Manag Sci/Info Sys 467 Statistical Quality Control (3)

Manag Sci/Info Sys 473 Applied Statistical Forecasting (3)

Manag Sci/Info Sys 560 Advanced Deterministic Models (3)

Manag Sci/Info Sys 561 Advanced Probabilistic Models (3)

Manag Sci/Info Sys 576 Business Modeling and Simulation (3)

Electives in other areas in Business Administration

Finance 432 Financial Forecasting and Budgeting (3)

Management 421 Operations Systems
Design (3)

Management 435 Service Organizations and Operations (3)

Marketing 425 Retail Marketing Strategy (3)

Marketing 435 Business Marketing Management (3)

Management 524 Seminar in Organizational Behavior and Administration (3)

Management 535 Production/Operations
Management (3)

Additional electives may be available-students should contact the MSIS department office for details.

#### Terminal Evaluation (3 units)

Manag Sci/Info Sys 578 Seminar in Logistics Models (3)

Students must complete the individual project in Manag Sci/Info Sys 578, with a grade of B or better. In exceptional cases, a thesis (Business Admin 598) may serve as an option to the individual written project. See the department graduate adviser for details.

### CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS

#### Required Courses (12 units)

Manag Sci/Info Sys 550 Special Topics on Information Systems Design and Data Communication (3)

Manag Sci/Info Sys 552 Information Systems Analysis, Design and Development (3)

Manag Sci/Info Sys 555 Data Structures and Data Base Management (3)

Manag Sci/Info Sys 526 Forecasting, Decision, Analysis and Experimental Design (3)

OR Manag Sci/Info Sys 560 Advanced Deterministic Models (3)

OR Manag Sci/Info Sys 561 Advanced
Problemistic Models (3)

### Electives in Information Systems (12 units)

Four courses (12 units) to be selected in consultation with and approved by the student's adviser:

Manag Sci/Info Sys 410 Internet Resources

Management (3)

Manag Sci/Info Sys 415 Decision Support and Expert Systems (3)

Manag Sci/Info Sys 418 Privacy and Security (3)

Manag Sci/Info Sys 557 Issues in Business Information Systems and Global Telecommunications (3)

Manag Sci/Info Sys 576 Business Modeling and Simulation (3)

Additional electives may be available. Students should contact the MSIS department office for details.

### Applications in Business and Economics (3 units)

Courses to be selected in consultation with, and approved by, the student's adviser from the following:

Accounting 511 Seminar in Managerial
Accounting (3)

Note: Students with credit for cost accounting may substitute Accounting 521
Seminar in Administrative Accounting (3)

Economics 502 Advanced Microeconomic Analysis (3)

Finance 523 Seminar in Corporate Financial Management (3)

Management 444 Project Management (3)

Marketing 525 Seminar in Marketing
Problems (3)

#### Terminal Evaluation (3 units)

Manag Sci/Info Sys 577 Seminar in Information Systems Implementation (3)

Students must complete the individual project in Manag Sci/Info Sys 577 with a grade of B or better. In exceptional cases, a thesis (Business Admin 598) may serve as an option to the individual written project. See the departmental graduate adviser for details.

### CONCENTRATIONS IN OPERATIONS RESEARCH AND STATISTICS

#### Required Courses (9 units)

Manag Sci/Info Sys 526 Forecasting,

Decision Analysis and Experimental

Design (3)

Manag Sci/Info Sys 550 Special Topics on Information Systems Design and Data Communication (3)

Manag Sci/Info Sys 560 Advanced Deterministic Models (3)

OR Manag Sci/Info Sys 561 Advanced Probabilistic Models (3)

### Applications in Business and Economics (3 units)

Courses to be selected in consultation with, and approved by, the student's adviser from the following:

Accounting 511 Seminar in Managerial
Accounting (3)

Note: Students with credit for cost accounting may substitute Accounting 521, Seminar in Administrative Accounting (3)

Economics 502 Advanced Microeconomic Analysis (3)

Finance 523 Seminar in Corporate Financial Management (3)

Management 444 Project Management (3)

Marketing 525 Seminar in Marketing
Problems (3)

#### Electives (15 units)

Courses may be chosen from one or more of the following fields and may include, with the approval of the department chair, courses from the Management Information Systems Concentration:

#### Operations Research

A general approach to decision-making based on scientific method.

Manag Sci/Info Sys 465 Linear Programming in Management Science (3)

Manag Sci/Info Sys 490 Queuing and
Stochastic Models in Management
Science (3)

Manag Sci/Info Sys 560 Advanced Deterministic Models (3)

Manag Sci/Info Sys 561 Advanced Probabilistic Models (3)

#### Statistics:

Collecting, analyzing, and interpreting data.

Manag Sci/Info Sys 422 Surveys and Sampling Design and Applications (3)

Manag Sci/Info Sys 461 Statistical Theory for Management Science (3)

Manag Sci/Info Sys 467 Statistical Quality Control (3)

Manag Sci/Info Sys 472 Design of Experiments (3)

Manag Sci/Info Sys 473 Applied Statistical Forecasting (3)

Manag Sci/Info Sys 475 Multivariate Analysis (3)

Additional electives may be available. Students should contact the MSIS department office for details.

#### **Terminal Evaluation**

Manag Sci/Info Sys 576 Business Modeling and Simulation (3)

OR Comprehensive Exam

Students must complete the individual project in Manag Sci/Info Sys 576 with a grade of B or better. In exceptional cases, a thesis (Business Admin 598) may serve as an option to the individual written project. See department graduate advisor for details.

### MANAGEMENT SCIENCE/ INFORMATION SYSTEMS COURSES

#### 161 Discovering Business through Decision Science (1)

The students will investigate how businesses operate through tours of a number of manufacturing and service facilities. The emphasis will be on how businesses use quantitative analysis to improve operations.

#### 162 Introduction to Excel Spreadsheets (1)

Introduction to the Excel spreadsheet with emphasis on business applications. Topics include how to enter data, formulas, functions, and enhancing the worksheet to create graphs and databases. Students who take Manag Sci/Info Sys 265 cannot receive credit for Manag Sci/Info Sys 162.

#### 163 Electronic Research of Business Enterprises (1)

Students will learn how to utilize electronic and non-electronic resources to research the history of a business. The resulting history will be published on the World Wide Web.

#### 165 Navigating the Information Superhighway (1)

This hands-on course is a survey of information resources available through the Internet. Students will cover topics such as email, the World Wide Web, Internet search engines, and computerized library resources.

#### 166 Developing Computer Based Presentations (1)

This course introduces the concepts, principles and techniques for developing computer based presentations. Students will learn to create presentation outlines, use masters and templates, work with graphs and organization charts, and develop electronic slides and transparencies.

#### 167 Practical Approaches to Data Base Systems (1)

This course presents hands-on methods to plan, create, and maintain databases.
Students also learn to create customized forms and queries, as well as to develop professional looking reports.

#### 168 Mastering the World Wide Web (1)

This course covers how the World Wide Web works and how one can set up a web sites and author web pages. Topics include: web browsers, design of a web site, HTML, multimedia, interactive techniques, CGI, security, and site promotion.

#### 262 Visual Basic for Excel (1)

Prerequisite: Manag Sci/Info Sys 162 or equivalent. Introduction to the Visual Basic programming language that is a subset of the Excel spreadsheet. Students who take Manag Sci/Info Sys 265 cannot receive credit for Manag Sci/Info Sys 262.

### 265 Introduction to Computing and Programming Concepts (3)

Introduction to computer concepts, computer organization, operation, hardware, systems and application software; business problem-solving and computer programming; applications to business. Microcomputer applications and hands-on exercises in the business arena.

### 309 Introduction to Operating Systems and Programming (3)

Prerequisite: Manag Sci/Info Sys 265. Structured programming principles; operating systems; shell commands and scripts; preparing and maintaining disks; managing files and processes; fundamental programming constructs; conditional processing; arrays; subroutines; parameter passing; fileprocessing.

#### 310 Systems Analysis and Design (3)

Prerequisite Manag Sci/Info Sys 309 (may be taken concurrently). Systems analysis and design for business information systems; systems development methodologies; managing changes to system parameters; systems process and data models; case tool types and their use; structured vs. object oriented analysis and design.

#### 352 Advanced Data and Information Analysis in Business (3)

Prerequisite: Finance 320 and Marketing 309 (may be taken concurrently). Systems analysis and design for business information systems; systems developed methodologies; managing changes to system parameters; systems process and data models; case tool types and their use; structured vs. object oriented analysis and design.

#### 361A Quantitative Business Analysis: Probability and Statistics (3)

Prerequisites: Math 135 and Manag Sci/Info Sys 265 or equivalents. Corequisite: Business Admin 301. Probability concepts; expectations; descriptive statistics; discrete and continuous random variables; sampling; estimation; hypothesis testing; simple and multiple regression; nonparametric statistics.

#### 361B Quantitative Business Analysis: Statistics and Management Science (3)

Prerequisite: Manag Sci/Info Sys 361A. Quantitative methods and their application to business and economic problems. Forecasting, ANOVA, quality control, mathematical modeling, optimization, Decision Analysis, PERT/CPM, inventory, Queuing, and simulation.

### 370 COBOL Programming for Information Systems (3)

Prerequisite: Manag Sci/Info Sys 309 and Manag Sci /Info Sys 370 (Manag Sci/Info Sys 310 can be taken concurrently). Structured and object-oriented COBOL; multiple-level table handling; sequential, indexed, and direct file processing; sort and merge functions; subprograms; abstract data types; objects; inheritance and dynamic binding.

#### 371 C++ For Business Applications (3)

Prerequisite: Manag Sci/Info Sys 310. C++ syntax, structured programming, table handling, design standards, object oriented programming. Upper division SBAE standing required.

#### 408 Database Management Systems (3)

Prerequisite: Business Admin 301 and Manag Sci/Info Sys 370 (Manag Sci/Info Sys 370 can be taken concurrently). Provides essential concepts, principles and methods for analysis, design and implementation of database management systems; covers theory and practice; emphasis is on the relational model; examines issues and problems associated with developing single and multiple user applications both today and in the future; project required.

### 409 Business Telecommunications for Information System Design (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 310 and 370 (Manag Sci/Info Sys 370 can be taken concurrently).

Communications design, concepts and hardware, telecommunications protocol, network

ware, telecommunications protocol, network architectures and configurations, LAN security and control, communication services, voice and electronic mail.

#### 410 Internet Resources Management (3)

Prerequisite: Business Admin 301; Corequisite Manag Sci/Info Sys 408 or 555. This course recognizes the expanding role of the Internet in the overall strategy, implementation, and management of enterprise-wide information systems. Topics include organizational utilization of electronic information resources, as well as Internet application planning, development, implementation and control.

### 411 Microcomputer Business Application Design (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 310 and 370 (Manag Sci/Info Sys 370 can be taken concurrently). This course focuses on contemporary issues in the design and development of integrated, graphical user interface-based business applications.

#### 415 Decision Support and Expert Systems (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 309. Principles and procedures related to the design and use of expert systems and decision support systems principles in management decision making; development of expert systems using shells.

#### 418 Privacy and Security (3)

Co-requisite: Business Admin 301, Manag Sci/Info Sys 309. Security and privacy problems associated with the use of computer systems; ways to minimize risks and losses.

### 422 Surveys and Sampling Design and Applications (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 361A. Principles for designing business and economic surveys. Applications in accounting, marketing research, economic statistics, and the social sciences. Sampling, simple random, stratified and multistage design; construction of sampling frames; detecting and controlling non-sampling errors.

### 440 Intermediate Management Science Models (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 361B. Intermediate management science modeling and solution techniques, including topics in linear and non-linear programming, integer programming, dynamic programming, Markov processes, queuing theory, and inventory models.

### 448 Computer Simulation in Business and Economics (3)

Prerequisites: Business Admin 301, Manag Sci/Info Sys 361B. Computer generation of discrete and continuous random variables, their use in computer simulation. Applications include queuing, communications, computer systems, economics, gaming, inventory, scheduling and other management science topics.

#### 454 Seminar in Information Systems Development (3)

Prerequisites: Business Admin 301, Manag Sci/Info Sys 408, 409, and 411. Integrates information systems development concepts of analysis, design and implementation. Students will develop an information system from concept to completion. Individual and team effort.

### 461 Statistical Theory for Management Science (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 361A. Review of mathematical topics needed for statistical theory.

Distribution, theory, moment generating functions, central limit theorem. Estimation theory, maximum likelihood. Hypothesis testing,
Neyman-Pearson Lemma. Likelihood ratio tests. Use of statistical software packages.

### 465 Linear Programming in Management Science (3)

Prerequisites: Business Admin 301, Manag Sci/Info Sys 361B or Mathematics 250B.

Mathematical and theoretical foundations for linear programming; geometric and linear algebraic approaches and proofs; simplex method, duality, sensitivity and parametric analyses, extensions to specialized algorithms, and large scale models; practical and computer based applications will be discussed.

#### 467 Statistical Quality Control (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 361A. Control charts for variables, percent defective and defects.

Tolerances, process capacity; special control charts, acceptance sampling and batch processing problems. Bayesian aspects of process control.

#### 472 Design of Experiments (3)

Prerequisite: Business Admin 301. Corequisite Manag Sci/Info Sys 440.

Experimental design. Analysis of variance, factorial experiments, nested designs, confounding and factorial replications.

#### 473 Applied Statistical Forecasting (3)

Prerequisite: Business Admin 301. Corequisite Manag Sci/Info Sys 440. Statistical methods applied to problems in business and industry; practical multiple regression models with computer solutions; basic techniques in time-series analysis of trend, cyclical and seasonal components; correlation of time-series and forecasting with the computer.

#### 475 Multivariate Analysis (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 361. The least squares principle; estimation and hypothesis testing in linear regression; multiple and curvilinear regression models; discriminant analysis; principal components analysis; application of multivariate analysis in business and industry.

#### 490 Queuing and Stochastic Models in Management Science (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 361B or Mathematics 335.

Probabilistic models in management science; theoretical foundation and model development for Poisson process models, birth-death models, Markovian and general queuing situations, and Markov chains; renewal theory and/or reliability models; practical business applications.

#### 495 Internship (1-3)

Prerequisites: Business Admin 301; at least junior standing, 2.5 GPA, and one semester in residency at the university; and consent of internship advisor. Students in the management information systems concentration must have completed Manag Sci/Info Sys 309, students in the management science concentration must have completed Manag Sci/Info Sys 361B, students in the international business concentration must have completed Manag Sci/Info Sys 309 or Manag Sci/Info Sys 361B. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No credit grading only.

#### 499 Independent Study (1-3)

Prerequisites: Business Admin 301, Manag Sci/Info 361B, senior standing, and approval by the department chair. Open to qualified students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

#### 513 Statistical Analysis (3)

Prerequisites: Math 135, Manag Sci/Info Sys 265 (or equivalents) and classified SBAE status. Basic probability and descriptive statistics; sampling techniques; estimation and hypothesis testing; simple and multiple regression, correlation analysis; computer packages and other optional topics.

#### 514 Decision Models for Business and Economics (3)

Prerequisites: Manag Sci/Info Sys 513 and classified SBAE status. Linear programming; inventory; PERT-CPM; queuing; simulation; computer applications; forecasting time series; and other topics.

#### 516 Analytical Techniques in Logistics (3)

Prerequisite: Manag Sci/Info Sys 514 and classified SBAE status. The scope of logistics; external and internal environment; analysis of demand, analysis of cost, commodity and transportation rates; structure of transport industry, inventory management, merchandise storage and warehousing; framework of regional analysis; methods of location analysis.

#### 526 Forecasting, Decision Analysis, and Experimental Design (3)

Prerequisites: Manag Sci/Info Sys 514 and classified SBAE status. Time series analysis. Trend, cyclical and seasonal components. Statistical decision theory. Fundamental principles of experimental design; interaction. Software packages.

#### 550 Special Topics on Information Systems Design and Data

Communication (3)

Prerequisites: Manag Sci/Info Sys 514 and classified SBAE standing. Information storage requirements; disk timing considerations; file organization and processing characteristics; data structures; modern data communication systems; computer networks.

#### 552 Information Systems Analysis, Design and Development (3)

Prerequisite: Management 515. Systems analysis and design concepts and methodologies; systems development life cycle and prototyping; planning and managing information systems projects; systems evaluation and selection; designing controls; developing information systems using event-driven programming language such as Visual Basic; interface design.

#### 555 Data Structures and Data Base Management (3)

Prerequisites: Manag Sci/Info Sys 550 and classified SBAE standing. File structures; multiple-key retrieval file organizations; Data Description Language (DDL) and Data Manipu- lation Language (DML); data independence; hierarchical, network and relational data bases.

#### 557 Issues in Business Information Systems & Global

Telecommunications (3)

Prerequisite: Management 515. Introduce advanced concepts of global networks, advanced communications design and management, global information security and privacy, global communications protocol, and applications to industry, government and commercial sectors.

#### 560 Advanced Deterministic Models (3)

Prerequisites: Manag Sci/Info Sys 514 and classified SBAE standing. Advanced linear programming, dynamic programming, integer programming, non-linear programming, business applications. Software packages and computer utilization.

#### 561 Advanced Probabilistic Models (3)

Prerequisites: Manag Sci/Info Sys 514 and classified SBAE standing. Stochastic processes, Markov processes, advanced queuing and inventory models; reliability; software packages and computer utilization.

#### 576 Business Modeling and Simulation (3)

Prerequisite: Manag Sci/Info Sys 513 or equivalent. Theory and application of modeling and simulation methodology. Probabilistic concepts in simulation; arrival pattern and service times; simulation languages and programming techniques; analysis of output; business applications. Requires projects. The individual project will fulfill the terminal degree requirement.

#### 577 Seminar in Information Systems Implementation (3)

Prerequisites: Manag Sci/Info Sys 550, 552 and 555. This course integrates the information systems development concepts of information systems project management, analysis, design, and implementation with telecommunications, database design, programming, testing and system integration issues. Students will develop information systems from concept to completion through individual and team effort. Requires projects. The individual project will fulfill the terminal degree requirement.

#### 578 Seminar in Logistics Models (3)

Prerequisite: Manag Sci/Info Sys 516, 526, and Marketing 519. This course integrates the concepts of logistics to systematically analyze a distribution system. Students will perform a complete analysis of an existing distribution system to investigate the value added role of logistics in distribution. Includes article analysis, case analysis, a research project, individual and group reports, and oral and written presentations. Requires projects. Requires projects. The individual will fulfill the terminal degree requirement

#### 597 Project (3)

Prerequisite: classified SBAE status. Directed independent inquiry. Not open to students on academic probation.

#### 599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status, consent of department chair and Associate Dean. May be repeated for credit. Not open to students on academic probation.

## Standard Information Technology (3) 233 Markeying Information Technology (3) 245 Technology 25 Technology 26 Technology 26 Technology 27 Technology 28 Technology 28 Technology 29 Technology 20 Technology 2

#### INTRODUCTION

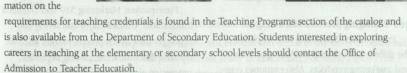
Marketing is a basic business function covering a wide range of activities. It includes studying markets, planning products, pricing them, promoting them, selling them, and then delivering these products to customers. People in wholesaling, retailing, advertising agencies, research firms and transportation companies are all working in the marketing area. Any firm which is reviewing its product policies needs marketers to identify the market, choose the products, find where they

can be sold and decide on a price for them.

#### Credential Information

For students interested in a teaching credetial, the Department of Marketing offers courses which may be included in the Subject Matter Preparation Program for secondary teaching.

Further information on the



#### Scholarships and Awards in Marketing

The Michael T. Ashton Memorial Scholarship for Outstanding Leadership

Outstanding Marketing Student Award

The Robert M. Olsen Scholarship Award

J C Penney Retail Scholarship

#### **BACHELOR OF ARTS IN BUSINESS ADMINISTRATION**

See "Business Administration, Marketing Concentration."

#### **MASTER OF BUSINESS ADMINISTRATION DEGREE**

See "Business Administration, Marketing Concentration."

#### **MARKETING COURSES**

#### 351 Principles of Marketing (3)

Prerequisite: Economics 202. Corequisites: Business Admin 301, Manag Sci/Info Sys 361A.

Analyzes how managers of business enterprises can effectively market goods and services domestically and internationally to target customers. Covers marketing research, new product development, brand management, pricing, promotion, and distribution channels. The role of marketing is critically examined from the consumer, economics, legal, political and ethical/social responsibility perspectives.

#### **DEPARTMENT CHAIR**

Irene Lange

#### **DEPARTMENT OFFICE**

University Hall 313

#### **PROGRAMS OFFERED**

Bachelor of Arts in Business Administration

Concentration in Marketing

Master of Business Administration

Concentration in Marketing

#### FACULTY

Catherine Atwong, Robert Barath, Grady Bruce, Neil Granitz, Scott Greene, Katrin Harich, Paul Hugstad, Robert Jones, Chiranjeev Kohli, Douglas LaBahn, Irene Lange, Lance Leuthesser, Robert Zimmer

#### **ADVISERS**

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements, registration and grading procedures, residence and similar academic matters. In addition, the Marketing Department provides advising on curriculum content and career opportunities.

#### 353 Marketing Information Technology (3)

Prerequisite: Business Admin 301, Manag Sci/Info Sys 361A. Corequisite: Marketing 351. Examination of information sources and applications for the marketer. Emphasis on transforming data into business plans. Topics include use of computerized databases, sales forecasting, interpretation of survey data and the creation of marketing presentations. Extensive computer applications.

#### 370 Buyer Behavior (3)

Prerequisite: Business Admin 301.

Corequisite: Marketing 351. Consumer buying patterns, motivation and search behavior. The consumer decision-making process. Inter-disciplinary concepts from economics, sociology, psychology, cultural anthropology and mass communications.

Case analyses and research projects.

#### 379 Marketing Research Methods (3)

Prerequisites: Business Admin 301, Marketing 351 and Manag Sci/Info Sys 361A. Marketing research process: problem formulation, identifying sources, selecting data collection, analysis techniques, and preparing research reports. Selecting marketing problems for research.

#### 401 Professional Selling (3)

Prerequisites: Marketing 351.
Salesmanship as an interpersonal influence process. Selling using principles of human behavior. Selling skills and techniques.

### 405 Integrating Marketing Communications (3)

Prerequisites: Marketing 351 and 379. Examines the management of the advertising function within the overall marketing task. Emphasis is given to managing distribution, managing the budget and managing creativity. Advertiser, advertising agency and media relationships are considered. International advertising is reviewed.

#### 415 Managing the Sales Force (3)

Prerequisites: Marketing 351. The sales manager's role in the organization; recruiting and selecting sales people; sales training; formulating compensation and expense plans; supervising and stimulating sales activities; morale; sales planning; evaluating sales people; and distribution cost analysis.

#### 425 Retail Marketing Strategy (3)

Prerequisites: Marketing 351. Examines the retailer's role in the marketing system from a management perspective; developing integrated marketing and financial strategies; positioning the retail offer to convey meaning to target customers; merchandise management and control; and addressing changing market conditions—domestic and international.

#### 435 Business Marketing Management (3)

Prerequisites: Marketing 351 and 353. Examines the decision-making implications in the business and organizational market as they apply to market segmentation, marketing planning and overall strategy formulation. The substrategies of product, price, promotion and distribution are discussed. International implications are considered.

#### 445 Multinational Marketing Strategies (3)

Prerequisites: Business Admin 301, Marketing 351. Theories of international trade and role of marketing decisions across national boundaries and markets. Focuses on concepts and principles of marketing strategies in multinational organizations from market assessments, entry alternatives, positions of global interdependence, marketing problems and ethical implications. Integrative cases, individual and team efforts emphasized.

#### 465 Managing Services Marketing (3)

Prerequisites: Marketing 351. Explores the differences between marketing services and marketing products. Also examines organizational requirements of firms that market services in contrast with marketing products. Considers the implications of marketing services internationally.

#### 475 Export Marketing Strategies (3)

Prerequisite: Marketing 351. Increases the student's awareness of international trading trends, the importance of trade worldwide. Emphasis is on entrepreneurial aspects and organizational structure to appraise markets, evaluate alternative export strategies and understand planning process. Includes documentation, financial considerations, government regulations.

#### 489 Developing Marketing Strategies (3)

Prerequisites: Marketing 351, 353, 370 and 379 and senior standing. Focuses on analysis of a wide variety of business situations. Analysis is followed by the development of a variety of possible marketing strategies. Extensive international orientation. Relies heavily on case studies and group interaction.

#### 495 Internship (3)

Prerequisites: six units of upper division marketing courses, including Marketing 351, concentration in marketing or in international business, consent of department internship adviser, and at least junior standing, 2.5 GPA and one semester in residence at Cal State Fullerton. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

#### 499 Independent Study (1-3)

Prerequisites: senior standing and approval by the Department Chair. Open to undergraduate students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

#### 519 Marketing Management (3)

Prerequisites: Accounting 510, Economics 515, Manag Sci/Info Sys 513, 514, Management 516, 518 (may be taken concurrently) and classified SBAE status. Concepts, principles and techniques used in the administration of the marketing variables. The role of marketing within the context of society and the business firm, social responsibility of business and international marketing.

#### 525 Seminar in Marketing Problems (3)

Prerequisites: Marketing 519 and classified SBAE status. Utilizes major marketing concepts: product development, market analysis, demand determination, pricing decisions, promotion activities, distribution channels and organizational requirements. Students develop analytical skills by working with marketing and business problems from domestic and global perspectives. Lecture and case method.

#### 596 Contemporary Topics in Marketing (3)

Prerequisites: Marketing 519 or equivalent; classified SBAE status. Topics in areas such as marketing of services, public policy, consumer issues, new product introduction, and strategic planning. May be repeated for credit.

#### 599 Independent Graduate Research (1-3)

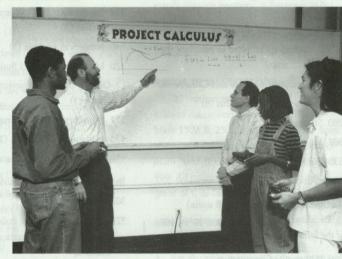
Prerequisites: classified SBAE status, consent of instructor and approval by department chair and Associate Dean. May be repeated for credit. Not open to students on academic probation.

## mathematics

#### INTRODUCTION

The Department of Mathematics offers a standard undergraduate major program in mathematics with concentrations in pure mathematics, applied mathematics, probability and statistics, and teaching mathematics. Courses are provided to satisfy the needs of:

- · Students planning graduate study in mathematics;
- Students planning to use mathematics in a career in business, industry or government.
- Students planning to teach at the elementary or secondary level;



• Students majoring in a discipline using mathematics as a descriptive or analytic tool.

The major program is designed to give sufficient breadth and depth in the study of mathematics to prepare students for subsequent graduate study in mathematics or related areas. The applied and the probability and statistics options provide the mathematics needed for certain careers in industry and government. For students interested in teaching in elementary or secondary schools, the teaching option may be combined with programs leading to a teaching credential to meet both university degree requirements and California credential law.

#### FACULTY

Martin Bonsangue, Wan-Ying Chang, Michael Clapp, Paul De Land, Harriet Edwards, James Friel, Gerald Gannon, William Gearhart, Stephen Goode, Theodore Hromadka, Vuryl Klassen, Vyron Klassen, William Leonard, Hung Van Ly, Gerald Marley, Mario Martelli, John Mathews, Karen Messer, Ronald Miller, David Pagni, John Pierce, Maijian Qian, Steven Roman, Harris Shultz, Ernie Solheid, Edsel Stiel, Lawrence Weill, Yun-Cheng Zee

#### SINGLE SUBJECT TEACHING REQUIREMENT IN MATHEMATICS

The Department, in conjunction with the Department of Secondary Education, offers coursework meeting the requirements for a California single subject credential in mathematics. This credential permits a person to teach any mathematics course offered at the elementary or secondary level. For CSUF to recommend this credential, an individual must have completed the department's state-approved Single Subject Matter Preparation Program, essentially the Teaching Option under the major, and have completed the two-semester math-ed and teacher-ed program, which includes methodology coursework and the student teaching experience. Students may enter this program in either the fall or spring semester. Please contact Dr. Gannon (278-3688) or Dr. Bonsangue (278-2728) for further information. Students should also contact the Department of Secondary Education (278-3411) for information on attending an orientation meeting to the Single Subject Credential Program.

#### DEPARTMENT CHAIR

James Friel

#### VICE CHAIR

Gerald Gannon

#### DEPARTMENT OFFICE

McCarthy Hall 154

#### **PROGRAMS OFFERED**

Bachelor of Arts in Mathematics

Pure Mathematics Concentration

Applied Mathematics Concentration

Probability and Statistics Concentration

Teaching Mathematics Concentration

Minor in Mathematics

Minor in Mathematics for Teacher Education

Master of Arts in Mathematics

Teaching Option

Applied Mathematics Option

Special Topics Program

Subject Matter Preparation Program for the Single Subject Credential

#### **BACHELOR OF ARTS IN MATHEMATICS**

In addition to the units in mathematics required in each program, all students seeking a B.A. in Mathematics are expected to be skilled in elementary computer programming. Students may choose from Mathematics 320, Engineering 205 Digital Computation or Computer Science 121 Programming Concepts. This requirement should be completed prior to junior standing. Each student is also required to select one of seven cognates from the disciplines of computer science, economics, management science, physics, chemistry, civil engineering or mathematics. Those students selecting the computer science cognate are required to take Computer Science 121. Students may not double count Mathematics 320 for the mathematics cognate and the programming requirement. Each course required for the major must be completed with a grade of C or better, and may not be taken on a credit/no credit basis. Courses required for the major may not be challenged by examination.

Mathematics majors should take the lower-division mathematics courses (150A,B, 250A,B) during their first two years. Advanced calculus (350A) should be completed before the senior year. Mathematics 150A may be used to satisfy general education requirements. Students planning to continue their studies toward a Ph.D. degree in Mathematics should try to include Math 350B, 407, 414 and 455 in their program.

Course substitutions are possible with the approval of the student's adviser and the Department Chair.

The requirements for the Bachelor of Arts in Mathematics consists of a total of 45 units in mathematics plus 3 units of History of Mathematics (Math 380), to meet the upperdivision writing requirement, plus an additional 9-12 units in a cognate area of interest. The 45 units of mathematics is divided into a 27-unit core requirement which must be completed by all majors and an additional 18 unit requirement in one of four possible concentrations: Pure Mathematics, Applied Mathematics, Probability and Statistics, or Teaching Mathematics. Total units needed to complete the B.A. in Mathematics is 124. The requirements for the B.A. in Mathematics are as follows.

Each student should develop an individual study plan in consultation with an academic adviser in the Mathematics Department. The following general guidelines should be followed:

Students who intend to either enter the applied mathematics master's program at Cal State Fullerton or to pursue employment in business, industry, or government are advised to take Mathematics 370 and 435. The remaining senior-level courses should be chosen in consultation with their academic adviser in the Mathematics Department.

Students who intend to enter graduate school in applied mathematics are advised to take Mathematics 302, 350B, 406 and 412. Students are advised to take Mathematics 302 before attempting the Graduate Record Examination (GRE).

#### Core Requirements (27 units)

All students are required to complete the following 27 units:

150A,B Analytic Geometry and Calculus (8)

250A,B Intermediate Calculus (8)

280 Strategies of Proof (2)

307 Linear Algebra (3)

335 Mathematical Probability (3)

350A Advanced Calculus (3)

#### Additional Requirements (18 units)

Each student is required to complete one of the following concentrations:

Pure Mathematics Concentration

302 Modern Algebra (3)

350B Advanced Calculus (3)

370 Mathematical Model Building (3)
OR 375 Discrete Dynamical Systems and Chaos (3)

412 Complex Analysis (3)

Two courses from the two groups below:

407 Abstract Algebra (3) OR 455 Real Analysis (3)

414 Topology (3)
OR 417 Foundations of Geometry (3)
OR 425 Differential Geometry (3)

Applied Mathematics Concentration

306 Vector and Tensor Analysis (3)

310 Ordinary Differential Equations (3)

340 Numerical Analysis (3)

Three courses from the following list, with at least two at the 400-level:

302 Modern Algebra (3)

350B Advanced Calculus (3)

370 Mathematical Model Building (3)

375 Discrete Dynamical Systems and Chaos (3)

- 406 Introduction to Partial Differential Equations (3)
- 412 Complex Analysis (3)
- 425 Differential Geometry (3)
- 435 Mathematical Statistics (3)

  OR 438 Introduction to Stochastic

  Processes (3)
- 440 Advanced Numerical Analysis (3)
- 470 Advanced Mathematics Model Building (3)

Probability and Statistics Concentration

338 Statistics Applied to Natural Sciences (3)

340 Numerical Analysis (3)

370 Mathematical Model Building (3)
OR 375 Discrete Dynamical Systems and Chaos (3)

371 Introduction to Combinatorics (3)

435 Mathematical Statistics (3)

438 Introduction to Stochastic Processes (3)

Teaching Mathematics Concentration

302 Modern Algebra (3)

370 Mathematical Model Building (3)
OR 375 Discrete Dynamical Systems and
Chaos 3)

401 Algebra and Probability for the Secondary Teacher (3)

402 Logic and Geometry for the Secondary Teacher (3)

Two courses from the following two groups:

414 Topology (3)

OR 417 Foundations of Geometry (3)

435 Mathematical Statistics (3)
OR 438 Introduction to Stochastic
Processes (3)
OR 470 Advanced Mathematical Model
Building (3)

#### Cognates (9-12 units)

Each student is required to complete one of the following cognates:

Computer Science Cognate (10 units)

Computer Sci 131 Data Structures Concepts (3)

Computer Sci 223V C++ Programming (3)

Computer Sci 231 File System Concepts (3)

Computer Sci 253U Operating System Workshop in Unix (1) Economics Cognate (12 units)

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Microeconomics (3)

One of the following:

Economics 310 Intermediate Microeconomic Analysis (3)

OR Economics 320 Intermediate Macroeconomics Analysis (3)

One of the following:

Economics 440 Econometrics (3)

OR Economics 441 Mathematical Economics (3)

Management Science Cognate (9 units)

Three courses from the following list:

Manag Sci/Info Sys 448 Computer Simulation in Business and Economics (3)

Manag Sci/Info Sys 467 Statistical Quality
Control (3)

Manag Sci/Info Sys 473 Applied Statistical Forecasting (3)

Manag Sci/Info Sys 472 Design of Experiments (3)

Manag Sci/Info Sys 475 Multivariate Analysis (3)

Physics Cognate (11 units)

Physics 225 Mechanics (3)

Physics 225L Mechanics Lab (1)

Physics 226 Electricity and Magnetism (3)

Physics 226L Electricity and Magnetism

Physics 227 Waves, Optics and Modern Physics (3)

Chemistry Cognate (10 units)

Chemistry 120A General Chemistry (5)

Chemistry 120B General Chemistry (5)

Civil Engineering Cognate (9 units)

Civil Engineering 201 Statics (3)

Civil Engineering 301 Mechanics of Materials (3)

One of the following:

Civil Engineering 302 Dynamics (3)

OR Civil Engineering 325 Structural
Analysis (3)

Mathematics Cognate (9 units)

Three upper-division courses in Mathematics from one of the four concentrations of the Mathematics major other than the student's own concentration.

Math 330 can be considered as part of either the Pure Mathematics Concentration or the Teaching Concentration for the purposes of satisfying this requirement.

#### Writing Requirement

Math 380 will satisfy the university's upper-division writing requirement for mathematics majors.

#### Internships in Mathematics

Internships in applied mathematics provide work experience in advanced mathematics through positions in business, industry or government. Students should contact the Center for Internships and Cooperative

#### **MINOR IN MATHEMATICS**

The mathematics minor consists of 25 units of coursework which must include Math 150A,B, 250A,B and at least nine units of upper division mathematics, exclusive of Math 303A,B, 380, 401, 402, 495, 496 and 499. All courses must be completed with a grade of *C* or better.

#### MINOR IN MATHEMATICS FOR TEACHER EDUCATION

- A. For elementary education the minor consists of 20 units of course work selected from the courses offered by the Department of Mathematics. The courses must include Mathematics 150B or 338, and Mathematics 303A,B. All courses must be completed with a grade of C or better.
- B. For secondary education the minor consists of 22 units of course work selected from the courses offered by the Department of Mathematics. The courses must include Mathematics 250B and six units of upper-division courses in mathematics. All courses must be completed with a grade of C or better.

#### **MASTER OF ARTS IN MATHEMATICS**

The M.A. in Mathematics is designed to provide advanced study for students interested in continuing studies for a Ph.D. in mathematics or mathematics education, high school and community college teaching or mathematical analysis in industry.

#### Prerequisites

An applicant must meet the university requirements for admission in conditionally

classified graduate standing: a baccalaureate from an accredited institution and a gradepoint average of at least 2.5 in the last 60 semester units attempted and be in good standing at the last college attended (see section of this catalog on Graduate Admissions for complete statement and procedures). In addition, students must have an undergraduate major in mathematics or a combination of previous course work and work experience approved as equivalent by the graduate committee of the Mathematics Department.

Applicants who meet the requirements for conditionally classified graduate standing may be granted classified graduate standing upon meeting the following requirements: a gradepoint average of at least 3.0 in all upper-division mathematics courses; the completion of undergraduate courses equivalent to one semester each of linear algebra, modern algebra and advanced calculus (students in the Applied Mathematics Option complete one semester of mathematical probability and one semester of advanced calculus with grades of B or better); the development of a study plan approved by an adviser and the graduate committee; and completion of the University Writing Requirement. Students with subject or grade deficiencies who have been admitted to conditionally classified standing must complete all courses required by the graduate committee with at least a 3.0 average before they will be classified. In addition, students in the teaching option should have completed a minimum of one year of full-time teaching.

#### **Teaching Option**

This option, designed for mathematics teachers, requires 30 units of graduate study approved by the graduate committee. At least sixteen of these units must be 500-level mathematics courses. The following course work must be included:

Mathematics 581 Geometry for Teachers (3)

Mathematics 582 Algebra for Teachers (3)

Mathematics 584 Analysis for Teachers (3)

Mathematics 586 Finite Mathematics for Teachers (3)

Mathematics 587 Problem Solving for Teachers (3)

Mathematics 599 Independent Graduate Research (3-6)

Each student will be required to take adviser-approved mathematics electives to

meet the 30-unit requirement, and pass a set of four comprehensive exams. Comprehensive exams may be taken at most twice.

#### **Applied Mathematics Option**

For those interested in applied mathematics, the Department of Mathematics, offers the following courses in applied mathematics:

Mathematics 489A,B Applicable Analysis and Linear Algebra (3,3)

Mathematics 501A,B Numerical Analysis and Computation I and II (3,3)

Mathematics 502A,B Probability and Statistics I and II (3,3)

Mathematics 503A,B Mathematical Modeling I and II (3,3)

Mathematics 504A,B Simulation Modeling and Analysis (3,3)

Mathematics 597 Project (6)

These courses were developed in consultation with mathematicians and scientists in the local industrial community and are specifically intended for individuals who are seeking positions, or who currently hold positions, which involve mathematics or quantitative applications. The subject matter emphasizes modern practical applied mathematics, modeling, problem solving and computation. The culminating experience is a project in which students have the opportunity of working in teams on a real problem, contracted and paid for by a local industrial firm. All classes are scheduled in the evening and can be taken in sequence in two calendar years, summers included.

#### Special Topics Program

Under certain circumstances, a plan of study leading to a Master of Arts in Mathematics may be designed to provide advanced work in mathematics. A personalized study plan to meet the objectives of each student may be developed within the general framework of the degree requirements.

The program requires a study plan with a minimum of 30 units of coursework, planned by the student and the student's adviser, and approved by the graduate committee of the Mathematics Department. At least 16 of these units must be 500-level mathematics courses. Some of the 500-level courses may be accompanied by one unit of Mathematics 599 Independent Graduate Research. Students will also be required to pass a set of comprehensive exams or complete a six-unit project.

#### Additional Information

A limited number of part-time instructor and research assistantships are available for selected graduate students. For more information, contact the Department of Mathematics.

#### **MATHEMATICS COURSES**

#### 030A,B Intermediate Algebra-ILE (3,3)

An intermedicate algebra course designed specifically for students who are advised to take the Mathematics Intensive Learning Experience based upon their performance on the ELM exam. Equations and inequalities, algebraic expressions, functions, and sequences and series. Degree credit is not awarded for these courses.

#### 040 Intermediate Algebra (3)

An intermediate algebra course designed specifically for students who have taken but not passed the ELM exam. Linear equations and inequalities, polynomial, rational, and radical expressions, quadratic functions, exponential and logarithmic functions, and sequences and series. Degree credit is not awarded for this course.

#### 110 Mathematics for Liberal Arts Students (3)

Prerequisites: passing score on the ELM or exemption; three years of high school mathematics, including two years of algebra and one year of geometry. Survey of traditional and contemporary topics in mathematics, such as elementary logic, counting techniques, probability, graph theory, codes and coding, and the mathematics of the social sciences. For non-science majors.

#### 115 College Algebra (4)

Prerequisites: passing score on the ELM or exemption; three years of high school mathematics, including two years of algebra and one year of geometry, and a passing score on in-class qualifying exam. For students planning to take Mathematics 130/135. Review of basic algebraic topics and treatment of functions, polynomials, logarithms, systems of equations and matrices. Credit given for either Mathematics 115 or Mathematics 125, but not both. (CAN MATH 10)

### 120 Introduction to Probability and Statistics (3)

Prerequisites: passing score on the ELM or exemption; three years of high school mathematics, including two years of algebra and one year of geometry. Set algebra, finite probability models, sampling, binomial trials, conditional probability and expectation. Recommended for students of economics, business, the biological, geological and social sciences.

#### 125 Precalculus (5)

Prerequisites: passing score on the ELM or exemption; three years of high school mathematics, including two years of algebra and one year of geometry, and a passing score on in-class qualifying exam. For students planning to take Mathematics 150A. Functional approach to polynomial, rational, exponential, logarithmic and trigonometric concepts; conic sections and induction. Credit given for either Mathematics 115 or Mathematics 125, but not both. (CAN MATH 16)

#### 125W Precalculus Workshop (1)

Corequisite: Mathematics 125 and consent of instructor. Supplementary problem-solving workshop in a collegial setting. (3 hours workshop)

#### 130 A Short Course in Calculus (4)

Prerequisites: passing score on the ELM or exemption; three years of high school mathematics, including two years of algebra and one year of geometry, and a passing score on the Mathematics Qualifying Exam (MQE). A survey of differential and integral calculus and applications. For students of biological and social sciences, business and economics. No graduation credit if taken after successfully completing Math 150A. Graduation credit given for only Mathematics 130 or 135. (CAN MATH 130)

#### 135 Business Calculus (3)

Prerequisites: passing score on the ELM or exemption; three years of high school mathematics, including two years of algebra and one year of geometry, and a passing score on the Mathematics Qualifying Exam (MQE). A survey of differential and integral calculus with applications, including derivatives, integrals and max-min problems. For students of business and economics. Graduation credit given for only Mathematics 130 or 135. (CAN MATH 34)

#### 150A,B Analytic Geometry and Calculus (4,4)

Prerequisites: passing score on the ELM or exemption; four years of high school mathematics, including trigonometry, and a passing score on the Mathematics Qualifying Exam (MQE) for Math 150A. Math 150A is the only prerequisite for Math 150B. Analytic geometry, functions, limits, differentiation, the definite integral, techniques of integration, applications. At most 6 units of credit are given for Mathematics 130 or Mathematics 135 if taken before Mathematics 150A. (150A = CAN MATH 18, 150B = CAN MATH 20; 150A + 150B = CAN MATH SEQ B; 150A, 150B, + 250A = CAN SEQ B)

#### 151A Calculus I Workshop (1)

Corequisite: Mathematics 150A and consent of instructor. Supplementary problem-solving in a collegial setting. (3 hours workshop)

#### 151B Calculus II Workshop (1)

Corequisite: Mathematics 150B and consent of instructor. Supplementary problem-solving in a collegial setting. (3 hours workshop)

#### 196 Student-to-Student Tutorials (1-3)

Consult "Student-to-Student Tutorials" in this catalog for more complete course description. May be taken CR/NC only.

#### 250A Intermediate Calculus (4)

Prerequisite: Mathematics 150A,B or equivalent. A continuation of Math 150. Infinite series, Taylor's theorem, functions of several variables, partial differentiation, multiple integration. (CAN MATH 22; 150A + 150B + 250A = CAN SEQ C).

### 250L Intermediate Calculus: Computer Laboratory (1)

Corequisite: Mathematics 250A. Use of computer software to solve calculus problems. (3 hours laboratory)

#### 250B Introduction to Linear Algebra and Differential Equations (4)

Prerequisite: Math 250A. An introduction to the solutions of ordinary differential equations and their relationship to linear algebra. Topics include matrix algebra, systems of linear equations, vector spaces, linear independence, linear transformations and eigenvalues.

#### 270A Mathematical Structures I (3)

Prerequisite: four years of high school mathematics. First of two semesters of fundamental discrete mathematical concepts and techniques needed in computer-related disciplines. Logic, truth tables, elementary set theory, proof techniques, and combinatorics.

#### 270B Mathematical Structures II (3)

Prerequisite: Mathematics 270A, Second of two semesters of fundamental discrete mathematical concepts and techniques needed in computer-related disciplines. Graph theory, Boolean algebra, algebraic structures, linear algebra.

#### 280 Strategies of Proof (2)

Prerequisite: Mathematics 150B. Logic, set theory, and methods for constructing proofs of mathematical statements. A bridge to the rigors of upper-division mathematics courses containing significant abstract content.

#### 302 Modern Algebra (3)

Prerequisite: Mathematics 250B. The integers, rational numbers, real and complex numbers, polynomial domains, introduction to groups, rings, integral domains and fields.

#### 303A,B Fundamental Concepts of Elementary Mathematics (3,3)

Prerequisite: Completion of a mathematics course that satisfies the General Education requirement. Grade of C or better in Mathematics 303A is prerequisite for Mathematics 303B. Structure and form of the mathematics that constitutes the core of the K-8 mathematics curriculum, including the real number system, number theory and equations.

#### 306 Vector and Tensor Analysis (3)

Prerequisite: Mathematics 250B. Vector analysis, including coordinate bases, gradient, divergence, and curl, Green's, Gauss' and Stokes' theorems. Tensor analysis, including the metric tensor, Christoffel symbols and Riemann curvature tensor. Applications will be drawn from differential geometry, continuum mechanics, electromagnetism, general relativity theory.

#### 307 Linear Algebra (3)

Prerequisite: Mathematics 250B.

Introduction to the theory of vector spaces.

Linear equations and matrices, determinants, linear transformations and eigenvalues, norms and inner products.

#### 310 Ordinary Differential Equations (3)

Prerequisite: Mathematics 250B. Theory and methods of solutions for ordinary differential equations, including Laplace transform methods and power series methods.

Oscillation theory for second order linear differential equations and/or theory for systems of linear and nonlinear differential equations.

### 320 Introduction to Mathematical Computation (3)

Prerequisite: Math 250B. Introduction to problem-solving on the computer using modern interactive software. Numerical and symbolic computation. A variety of problems arising in mathematics, science, and engineering will be explored. Also serves as preparation for subsequent computer-based courses in mathematical modeling.

#### 330 Number Theory (3)

Prerequisite: Mathematics 250B. Divisibility, congruences, prime number theory, Diophantine problems.

#### 335 Mathematical Probability (3)

Prerequisite: Mathematics 250A.

Probability theory; discrete, continuous, and multivariate probability distributions, independence, conditional probability distribution, expectation, moment generating functions, functions of random variables, and the central limit theorem.

### 337 Introduction to Experimental Design and Statistics in the Laboratory Sciences (3)

Prerequsite: passing score on the ELM or exemption; completion of one of the following courses: Biology 241, 261; Chemistry 120; or Physics 211, 225. Graphical and numerical descriptive statistics; experimental design, rando-mization, replication, block designs, stratified samples, controlled experiments versus observational studies.

Fundamental inference for proportions, means, variances. Analysis of variance, regression. Computer analysis of data from the laboratory sciences, e.g. Biology, Chemistry, Geology.

### 338 Statistics Applied to Natural Sciences (3)

Prerequisite: Mathematics 130 or 150B or consent of instructor. An introduction to the theory of statistics and statistical applications with an emphasis on data analysis techniques using statistical software. Topics include elementary probability theory, estimation, hypothesis testing, correlation and regression, analysis of variance, and non-parametric tests.

#### 340 Numerical Analysis (3)

Prerequisites: Mathematics 250B and either Engineering 205, Computer Science 121 or equivalent. Approximate numerical solutions of systems of linear and nonlinear equations, interpolation theory, numerical differentiation and integration, numerical solution of ordinary differential equations. Computer coding of numerical methods.

#### 350A,B Advanced Calculus (3,3)

Prerequisite: Mathematics 250B. 350A is a prerequisite for 350B. Proofs in analysis. Continuity, differentiation and integration of functions of several variables, improper integrals, sequences and infinite series.

### 368 First Course in Symbolic Logic (3) (Same as Philosophy 368)

#### 370 Mathematical Model Building (3)

Prerequisite: Mathematics 250B or consent of instructor and one of the following: Engineering 205, Computer Science 121 or equivalent. The theory of mathematical models and their applications in the biological, physical and social sciences. Discrete and continuous models.

#### 371 Introduction to Combinatorics (3)

Prerequisite: Mathematics 250A or Mathematics 270B. Analysis of discrete structures and relations; proofs of existence and methods of enumeration. Permutations and combinations, the binomial coefficients, the inclusion-exclusion principle, recurrence relations, generating functions, systems of distinct representatives and the marriage theorem, and combinatorial designs. (Same as Computer Science 371)

### 375 Discrete Dynamical Systems and Chaos (3)

Prerequisite: Mathematics 250B or consent of instructor. Analysis of the evolution of linear and nonlinear deterministic discrete systems with emphasis on long range behavior, stability and instability of stationary states and periodic orbits, chaotic orbits, strange attractors, fractional dimension and lyapunov exponents; examples from current research literature.

#### 380 History of Mathematics (3)

Prerequisite: Mathematics 250B. The history of mathematics through its methods and concepts. Designed to help the student become proficient in writing and reading mathematical literature. Satisfies the upperdivision writing requirement for mathematics majors.

### 401 Algebra and Probability for the Secondary Teacher (3)

Prerequisite: 12 units of upper-division mathematics. Overview of mathematical topics relevant to the teacher of secondary mathematics. Problem-solving approach to areas including algebra, number theory, combinatorics and probability while maintaining an historical perspective.

### 402 Logic and Geometry for the Secondary Teacher (3)

Prerequisite: 12 units of upper-division mathematics. A course parallel to Mathematics 401 but with emphasis on geometry, trigonometry and the theory of equations.

### 406 Introduction to Partial Differential Equations (3)

Prerequisite: Mathematics 306. First order linear and quasi-linear partial differential equations. Classification of second order linear partial differential equations. Fourier analysis, Sturm-Liouville theory, integral transforms, and their application to boundary-value problems for the potential, wave, and diffusion equations.

#### 407 Abstract Algebra (3)

Prerequisite: Mathematics 302. Sets, mappings, groups, rings, modules, fields, homomorphisms, advanced topics in vector spaces and theory of linear transformations, matrices, algebras, ideals, field theory, Galois theory.

#### 412 Complex Analysis (3)

Prerequisite: Mathematics 350A. Complex differentiation and integration, Cauchy's theorem and integral formulas, maximum modulus theorem, harmonic functions, Laurent series, analytic continuation, entire and meromorphic functions, conformal transformations and special functions.

#### 414 Topology (3)

Prerequisite: Mathematics 350A.

Topological spaces and continuous functions, connectedness and compactness, metric spaces and function spaces.

#### 417 Foundations of Geometry (3)

Prerequisite: Mathematics 307. A study of the foundations of Euclidean and non-Euclidean geometries through transformations and formal axiomatics.

#### 425 Differential Geometry (3)

Prerequisite: Mathematics 307. The differential geometry of curves and surfaces. Frenet-Seret formulas, the Gauss-Weingarten equations, the Gauss-Bonnet theorem.

#### 435 Mathematical Statistics (3)

Prerequisite: Mathematics 335 or equivalent. Statistical theory and its applications, based on the use of calculus.

#### 438 Introduction to Stochastic Processes (3)

Prerequisite: Mathematics 335. Stochastic processes including Markov chains, the

Poisson Process, the Wiener Process. Applications to birth and death processes and queuing theory.

#### 440 Advanced Numerical Analysis (3)

Prerequisite: Mathematics 340. Advanced topics in numerical analysis selected from iterative methods for linear systems, approximation of eigenvalues and eigenvectors, numerical methods for ordinary and partial differential equations, optimization methods and approximation theory. Error and convergence analysis and computer coding.

#### 470 Advanced Mathematical Model Building (3)

Prerequisite: Mathematics 370. A continuation of Mathematics 370. Discrete, continuous and stochastic models utilizing methods from applied mathematics. A project suitable to the student's background and interest may be required.

#### 489A Applicable Linear Algebra (3)

Prerequisites: undergraduate calculus, linear algebra, advanced calculus and consent of instructor. Topics from linear algebra useful in graduate studies in applied mathematics. Finite and infinite dimensional vector spaces, linear transformations and matrices. An introduction to Hilbert spaces. The projection theorem and some of its applications. Must be taken concurrently with Math 489B.

#### 489B Applicable Analysis (3)

Prerequisites: undergraduate calculus, linear algebra, advanced calculus and consent of instructor. Topics from analysis useful in graduate studies in applied mathematics. Topics may include initial and boundary value problems, including series solutions, eigenvalues and eigenfunctions, Fourier analysis, generalized functions, an introduction to the calculus of variations, and transform methods. Must be taken concurrently with Math 489A.

#### 491 Career Options in Mathematics (1)

Prerequisite: upper-division standing in Mathematics. Career options in mathematics. Credit/No Credit.

### 495 Internship in Applied Mathematics (1-3)

Prerequisites: 15 units of upper-division mathematics and consent of instructor. Work experience in advanced mathematics through positions in business, industry or government.

#### 496 Student-to-Student Tutorials (1-3)

Consult "Student-to-Student Tutorials" in this catalog for more complete course description. May be taken CR/NC only.

#### 499 Independent Study (1-3)

Prerequisite: consent of instructor. Special topic in mathematics, selected in consultation with and completed under supervision of instructor.

#### 501A Numerical Analysis and Computation I (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Numerical methods for linear and nonlinear systems of equations, eigenvalue problems. Interpolation and approximation, spline functions, numerical differentiation, integration and function evaluation. Error analysis, comparison, limitations of algorithms. Must be taken concurrently with Mathematics 501B.

#### 501B Numerical Analysis and Computation II (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Numerical methods for initial and boundary-value problems for ordinary and partial differential equations. The finite element method. Error analysis, comparison, limitations of algorithms. Must be taken concurrently with Mathematics 501A.

#### 502A Probability and Statistics I (3)

Prerequisites: Mathematics 335 and 489A,B. Theory and applications of probability models including univariate and multivariate distributions; expectations and transformations of random variables.

#### 502B Probability and Statistics II (3)

Prerequisite: Mathematics 502A. Theory and applications of sampling theory, statistical estimation, and hypothesis testing.

#### 503A Mathematical Modeling I (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Mathematical modeling concepts. Topics may include: dimensional analysis, scaling, and sensitivity; system concepts, state space, observability, controllability, and feedback; dynamical systems, models and stability analysis; optimization models.

#### 503B Mathematical Modeling II (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Development and analysis of mathematical models in such areas as mechanics, economic planning, operations management, environmental and ecological sciences, biology and medicine. The course includes a project, with students working in a team setting.

### 504A Simulation Modeling and Analysis (3)

Prerequisites: Mathematics 501A,B; 502A,B; 503A,B; and consent of instructor. Advanced techniques of simulation modeling, including the design of Monte Carlo, discrete event, and continuous simulations. Topics will include output data analysis, comparing alternative system configurations, variance-reduction techniques, and experimental design and optimization. Must be taken concurrently with Mathematics 504B.

### 504B Applications of Simulation Modeling Techniques (3)

Prerequisites: Mathematics 501A,B; 502A,B; 503A,B; and consent of instructor. Introduction to a modern simulation language, and its application to simulation modeling. Topics will include development of computer models to demonstrate the techniques of simulation modeling, model verification, model validation, and methods of error analysis. Must be taken concurrently with Mathematics 504A.

#### 581 Geometry for Teachers (3)

Prerequisites: Mathematics 307 or consent of instructor, graduate standing, plus one

year of full-time teaching in secondary school mathematics. Topics relating to the high school curriculum from an advanced standpoint including the axiomatic method and non-Euclidean geometry.

#### 582 Algebra for Teachers (3)

Prerequisites: Mathematics 302, or consent of instructor, graduate standing, plus one year of full-time teaching in secondary school mathematics. Topics relating to the high school curriculum from an advanced standpoint including algorithms, fields and polynomials.

#### 584 Analysis for Teachers (3)

Prerequisites: Mathematics 350A or consent of instructor, graduate standing, plus one year of full-time teaching in secondary school mathematics. Topics relating to the high school curriculum from an advanced standpoint including limits, continuity, differentiation and integration.

#### 586 Finite Mathematics for Teachers (3)

Prerequisites: Mathematics 335 or consent of instructor; and either EG-GN 205, Computer Science 121 or equivalent; graduate standing and one year of full time teaching in secondary school mathematics. Topics relating to the high school curriculum from an advanced standpoint including combinatorics, probability, matrices, and linear programming.

#### 587 Problem Solving for Teachers (3)

Prerequisites: Math 302 or consent of instructor, graduate standing, plus one year of full-time teaching in secondary school mathematics. Problem solving via non-routine and enrichment-type problems from several branches of mathematics.

#### 597 Project (3)

Prerequisite: consent of instructor. May be repeated for credit. Students in the Applied Master's Program earn a total of 6 units.

#### 599 Independent Graduate Research (1-3)

Prerequisite: graduate standing. One unit required for each regular graduate course.

Also offered without being attached to any course. May be repeated for credit.

#### **MATHEMATICS EDUCATION COURSES**

### 442 Teaching Mathematics in Secondary School (3)

Prerequisite: admission to Teacher Education Program in Mathematics or consent of instructor. Objectives, methods, and materials and technology for teaching mathematics. Required before student teaching, of mathematics majors for the general single subject credential. (2 hours lecture, 2 hours activity)

#### 449E Externship in Secondary Teaching (3)

See description under Department of Secondary Education.

#### 449I Internship in Secondary Teaching (10)

See description under Department of Secondary Education.

#### 449S Seminar in Secondary Teaching (2)

See description under Department of Secondary Education.

#### 499 Independent Study (1-3)

Prerequisite: consent of instructor. Special topic in mathematics education, selected in consultation with and completed under supervision of the instructor. May be repeated for credit.

# mechanica

#### INTRODUCTION

The mechanical engineering program at CSUF provides a foundation for professional engineering careers in private industry and government. Mechanical engineers are employed in a wide range of industries such as manufacturing, transportation, energy, food, and bio-medicine In general, mechanical engineers are involved with the design, research, development, manufacture, distribution, support, maintenance, and recycling of devices and products. Automobiles,

airplanes, home appliances (refrigerators, washing machines, dryers, vacuum cleaners, etc.), robots, printers, and computer hard disk drives are some of the various products that have been customarily designed and developed by mechanical engineers.

Mechanical engineers possess a firm understanding of science, mathematics and engineering needed to carry out these complex tasks which are so important to a modern technological society.

The undergraduate curriculum in mechanical engineering offers a broad education with coursework in basic sciences. coupled with studies in arts and humanities and behavioral and

mathematics, fundamental principles and practice of engineering,

social sciences, because of their importance in an engineering career.

The graduate curriculum is designed to provide a specialized education for career advancement or further work towards a Ph.D

#### **BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING**

See "Departments of Engineering" for requirements in mathematics and science foundation courses (30 units), engineering core courses (24 units) and general education coursework.

#### Upper-Division Writing Requirement

In addition to the Examination in Writing Proficiency (EWP), the following courses are required by all mechanical engineering majors: EG-ME 306A, 306B, 376A and 376B. Written work for these courses must meet professional standards and requires completion of these courses with a grade of C or better.

#### Required Courses in Mechanical Engineering (39 units)

EG-EE 303 Electronics (3)

EG-EE 303L Electronics Laboratory (1)

EG-ME 306B Fluids and Thermal Laboratory (1)

EG-ME 322L Introduction to Computer-Aided Design (3)

EG-ME 331 Mechanical Behavior of Materials (3)

EG-ME 333 Fluid Mechanics & Aerodynamics (3)

#### **DEPARTMENT HEAD:**

Hasan Sehitoglu

#### **DEPARTMENT OFFICE:**

Engineering 100

#### **PROGRAMS OFFERED**

Bachelor of Science in Mechanical Engineering Manufacturing Engineering Emphasis Master of Science in Mechanical Engineering

#### **FACULTY**

Andy Bazar, Jesa Kreiner, Sundaram Krishnamurthy, Timothy Lancey, Hossein Moini, Peter Othmer, James Rizza, Hasan Sehitoglu

#### ADVISER:

Undergraduate/Graduate Program Adviser: Hasan Sehitoglu

EG-ME 335 Introduction to Mechanical Design (3)

EG-ME 370 Seminar in Engineering (1)

EG-ME 376A Dynamic Systems and Controls Lab (2)

EG-ME 376B Energy and Power Lab (2)

EG-ME 407 Heat Transfer (3)

EG-ME 414 Design Project I (3)

EG-ME 419 Design Project II (2)

EG-ME 421 Mechanical Design (3)

EG-ME 426 Design of Thermal and Fluid Systems (3)

EG-ME 431 Mechanical Vibrations (3)

### Technical Electives in Mechanical Engineering (11 units)

Before enrolling in any elective course, approval of the adviser must be obtained.

Power and Energy:

EG-GN 403 Computer Methods in Numerical Analysis (3)

EG-ME 405 Computational Fluid Mechanics (3)

EG-ME 417 Computational Heat Transfer (3)

EG-ME 447 Piping Selection and Piping Network Design (3)

EG-ME 451 Thermal Environmental Conditioning and Control (3)

EG-ME 452 Fluid Machinery (3)

EG-ME 454 Optimization of Engineering Design (3)

Design and Materials for Manufacturing:

EG-GN 403 Computer Methods in Numerical Analysis (3)

EG-ME 410 Introduction to the Finite Element Method and Applications (3)

EG-ME 411 Mechanical Control Systems (3)

EG-ME 438 Analytical Methods in Engineering (3)

EG-ME 454 Optimization of Engineering Design (3)

EG-ME 459 Plastics and Other Non-Metallics (3)

EG-ME 460 Failure of Engineering Materials (3)

EG-ME 461 Fabrication Methods (3)

EG-ME 462 Composite Materials (3)

EG-ME 463 Introduction to Robotics (3)

EG-ME 475 Acoustics and Noise Control (3)

EG-ME 480 Human Factors in Engineering (3)

EG-ME 483 Computer-Aided Manufacturing (3)

Thermal and Fluids Engineering:

EG-ME 405 Computational Fluid Mechanics (3)

EG-ME 410 Introduction to the Finite Element Method and Applications (3)

EG-ME 417 Computational Heat Transfer (3)

EG-ME 447 Piping Selection and Piping Network Design (3)

EG-ME 451 Thermal Environmental Conditioning and Control (3)

EG-ME 452 Fluid Machinery (3)

EG-ME 454 Optimization of Engineering Design (3)

Robotics, Controls, and Automated Manufacturing:

EG-GN 403 Computer Methods in Numerical Analysis (3)

EG-ME 410 Introduction to the Finite Element Method and Applications (3)

EG-ME 411 Mechanical Control Systems (3)

EG-ME 454 Optimization of Engineering Design (3)

EG-ME 461 Fabrication Methods (3)

EG-ME 463 Introduction to Robotics (3)

EG-ME 483 Computer-Aided Manufacturing (3)

### MANUFACTURING ENGINEERING EMPHASIS

See Department of Engineering for requirements in mathematics and science foundation courses (30 units), engineering core courses (24 units) and general education of course work.

#### Required Courses (43 units)

EG-EE 303 Electronic Instrumentation (3)

EG-EE 303L Electronic Instrumentation Lab (1)

EG-ME 306B Fluids and Thermal Laboratory (1)

EG-ME 322L Introduction to Computer-Aided Design (3)

EG-ME 331 Mechanical Behavior of Materials (3)

EG-ME 333 Fluid Mechanics and Aerodynamics (3)

EG-ME 335 Introduction to Mechanical Design (3)

EG-ME 370 Seminar in Engineering (1)

EG-ME 376A Dynamic Systems and Controls Lab (2)

EG-ME 407 Heat Transfer (3)

EG-ME 414 Design Project I (3)

EG-ME 419 Design Project II (2)

EG-ME 421 Mechanical Design (3)

EG-ME 426 Design of Thermal and Fluid Systems (3)

EG-ME 461 Fabrication Methods (3)

EG-ME 463 Introduction to Robotics (3)

EG-ME 483 Computer-Aided Manufacturing (3)

#### Technical Electives (9 units)

Before enrolling in any elective course approval of the adviser must be obtained.

EG-ME 410 Introduction to the Finite Element Method and Applications (3)

EG-ME 411 Mechanical Control Systems (3)

EG-ME 454 Optimization of Engineering Design (3)

EG-ME 459 Plastics and Other Non-Metallics (3)

EG-ME 460 Failure of Engineering Materials (3)

EG-ME 462 Composite Materials (3)

EG-ME 480 Human Factors in Engineering (3)

EG-CE 408 Reinforced Concrete Design (3)

EG-EE 323 Engineering Probability and Statistics (3)

EG-EE 404 Introduction to Microprocessors and Microcomputers (3)

EG-EE 404L Introduction to Microprocessors and Microcomputers Lab (1)

EG-EE 445 Digital Electronics (3)

EG-EE 445L Digital Electronics Lab (1)

EG-EE 465 Introduction to VLSI Design (3)

### MASTER OF SCIENCE IN MECHANICAL ENGINEERING

To qualify for admission to conditionally classified standing, applicants must meet the following university and departmental requirements:

- Bachelor's degree from a regionally accredited institution.
- Bachelor's degree in mechanical engineering from an institution accredited by the Accreditation Board for Engineering and Technology (ABET.)

- 3. Minimum GPA of 2.5 in the last 60 semester units.
- 4. Good standing at the last institution attended.

Students not meeting the above requirements may be admitted at the discretion of the department head and will be required to take an additional six or more units of adviser-approved prerequisite coursework. The student must demonstrate potential for graduate study by earning a grade-point average of 3.0 or higher in these courses.

Any student entering the Master of Science degree program without a B.S. in Mechanical Engineering also will be required to complete deficiency courses prior to beginning coursework for the master's degree.

#### Classified Standing

Students meeting the following additional requirements will be advanced to classified standing and are eligible to take graduate courses for which they are qualified.

- Completion of all deficiency work specified by the graduate adviser with a grade of B or better.
- Development of an approved study plan.
  Before completing nine units at CSUF
  toward the M.S. degree, the student must
  meet with an adviser for preparation of a
  study plan which must be approved by
  the department head and Office of
  Graduate Studies.
- 3. Fulfillment of the university writing requirement prior to completing nine units at CSUF toward the M.S. degree. Students must demonstrate writing ability commensurate with the baccalaureate degree. Please refer to the "Graduate Regulations" section of this catalog for further information on how this requirement can be met.

#### Study Plan

The study plan consists of a minimum of 30 units of adviser-approved upper-division or graduate-level coursework which must be completed with an overall grade-point average of at least 3.0. At least half the units required for the degree must be in approved graduate (500-level) courses.

Required Courses (6 units)

EG-GN 403 Computer Methods in Numerical Analysis (3)

Additional adviser-approved math-oriented course (3)

Concentration Courses (15 units)

A student is required to select a minimum of 15 units in mechanical engineering.

These units may be 400-level and 500-level courses and are selected according to the student's areas of interest. Coursework is designed to meet student's professional career goals and may focus on the following areas: Power and Energy, Design and Materials for Manufacturing, Thermal and Fluids Engineering, Robotics, Controls, and Automated Manufacturing.

Other Courses (9 units)

Elective units should be taken in mechanical engineering or a related engineering field and are subject to adviser approval.

#### Exam/Thesis/Project Option

Subject to approval by the adviser, students may select one of the following options for final review by a department committee:

Oral comprehensive examination

OR EG-ME 598 Thesis (3-6 units)

OR EG-ME 597 Project (3-6 units)

Students enrolling in less than six units of Thesis/Project will be required to take an oral comprehensive exam. Students enrolling in six units of thesis or project may defend their thesis or project instead of taking an oral comprehensive exam.

#### **MECHANICAL ENGINEERING COURSES**

#### 102 Graphical Communications (3)

Graphics as a fundamental means of communication in design. Development of spatial visualization. Freehand sketching, and use of instruments, orthographic projection, pictorials. Dimensioning, tolerances, descriptive geometry, CAD principles and applications, AutoCAD, design procedure, cost analysis and freshman design project. (1 hour lecture, 6 hours laboratory) (CAN ENGR 2)

#### 286 Technology-Based Graphical Communication (3)

Prerequisite: Mathematics 150A or Mathematics 130. Introduction to the techniques used in three-dimensional graphics, design and visualization to conceptualize, apply, analyze, synthesize, evaluate and communicate information concepts using available technology. No credit for Engineering/ Computer Science majors. (2 hours lecture, 2 hours laboratory)

### 301L Advanced AutoCAD for Design Documentation (2)

Prerequisite: EG-ME 102. Advanced topics in AutoCAD. Review of multiview drawing, pictorials and sections. Advanced construct and modify commands. Blocks and block attributes. Advanced dimension/tolerance principles, variables and styles. Paper space commands and variables. 3-D viewing and display. (1 hour lecture, 3 hours laboratory)

#### 304 Thermodynamics (3)

Prerequisites: Chem 120A, Math 150B and Physics 225. Corequisite: EG-GN 205 or consent of instructor. Energy and its transformation; heat and work; conservation of mass and energy, system properties, irreversibility and availability. Ideal gases, heat engines and refrigeration (both ideal and actual), equipment selection and sizing.

#### 306A Unified Laboratory (1)

Prerequisites: EG-ME 102, Physics 225; Corequisite: EG-GN 205. Observations and measurements as an introduction to the experimental method. Static and dynamic measurements on engineering systems (beams, columns, pendulums, gyroscopes) using mechanical and electrical transducers. Principles of probability and statistics and their applications to experimental measurements. Report writing. (3 hours laboratory)

#### 306B Fluids and Thermal Laboratory (1)

Prerequisites: EG-ME 306A and 333.
Continuation of EG-ME 306A. Flow measurement techniques using orifice plates, venturimeters. Pitot probes and nozzles.
Temperature and pressure measurement.
Experimental studies of fluid friction and heat exchanger performance. Use of microcomputers in data acquisition, reduction and analysis. Technical report writing. (3 hours laboratory)

### 322L Introduction to Computer Aided Design (3)

Prerequisite: approved study plan. Design using commercial computer aided design systems. Roles of 2-D drafting, 3-D wireframe, solids modeling, finite element modeling and optimization in the computer aided design process. Design project utilizing appropriate software. CAD system selection criteria. (6 hours laboratory, 1 hour discussion) (Same as Computer Science 322L)

#### 331 Mechanical Behavior of Materials (3)

Prerequisites: Chem 120A, Math 250A, EG-CE 201. Corequisite: EG-ME 306A. Engineering properties of materials. Toughness and fatigue. Creep phenomena. Corrosion. Energy concepts. Beams and columns. Torsion. Combined stresses. Pressure vessels. Failure theories. Design of machine elements.

### 333 Fluid Mechanics and Aerodynamics (3)

Prerequisites: EG-GN 205 and EG-CE 201. Corequisites: EG-ME 304. Principles of fluid mechanics and their applications; fluid properties; fluid statics; one-dimensional incompressible flow; concepts of multi-dimensional flows including conservation principles; similitude and dimensional analysis; internal and external viscous flow; elements of compressible flow; design considerations in fluid mechanics.

### 335 Introduction to Mechanical Design (3)

Prerequisites: EG-GN 205, EG-CE 302 and EG-ME 102. Kinematics and dynamics of mechanisms; design and analysis of linkages, gears, cams, through the use of analytical, graphical and computer-aided techniques.

#### 370 Seminar in Engineering (1)

Prerequisite: senior standing in engineering. The engineering profession, professional ethics, and related topics. May be repeated once for credit with the approval of the faculty head.

#### 376A Dynamic Systems and Controls Laboratory (2)

Prerequisites: EG-CE 302, EG-ME 306A and EG-GN 308. Corequisite: EG-EE 303. Dynamic systems, vibration, acoustics and other mechanical subjects; computer simulation of dynamic systems; robotics, computer controlled machining and automatic data acquisition. (6 hours laboratory)

#### 376B Energy and Power Laboratory (2)

Prerequisites: EG-ME 304 and 306B. Mass transfer, heat transfer, and thermodynamic phenomena and their interaction with mechanical systems. Team projects, engineering reports. (6 hours laboratory)

#### 407 Heat Transfer (3)

Prerequisites: EG-ME 333 and Math 250B. Principles of heat transfer and their applications: introduction to conductive, convective and radiation heat transfer; one-dimensional heat conduction; concepts of multi-dimensional conduction; convective heat transfer in conduits and external surfaces; heat exchangers and thermal system design.

#### 410 Introduction to the Finite Element Method and Applications (3)

Prerequisite: approved study plan. Basic concepts of integral and matrix formulation of boundary value problems. One dimensional finite element formulation of heat transfer, truss beam and vibration problems. Applications of commercial finite element programs. Selection criteria for code, element and hardware. CAD system interfaces.

#### 411 Mechanical Control Systems (3)

Prerequisites: EG-GN 205, EG-GN 308 and EG-CE 302. Mechanical control system design and analysis. Pneumatic, hydraulic, electromechanical actuators and devices. Stability criteria, root locus plots, transfer functions, introduction to feedback control and microprocessor applications.

#### 414 Design Project I (3)

Corequisites: EG-ME 426 and 421. Design methodology, CAD/CAE philosophy, optimization, product liability, probability/statistical principles, ASME codes, safety, human factors, material selection, legal aspects of design, professional ethics. Design project to be completed in EG-ME 419, feasibility study, preliminary design, assembly drawings, interim project report. Oral presentation. (1 hour lecture and 6 hours laboratory)

#### 417 Computational Heat Transfer (3)

Prerequisite: EG-GN 205, EG-GN 308, and EG-ME 407. Computer visualization of 2-D/3-D temperature fields. Steady and unsteady conduction heat transfer. Incompressible free and forced convective boundary layer flows. Multiple surface radiation analysis. Boiling and condensation. Emphasis on design aspects of computational heat transfer and use of CFD codes.

#### 419 Design Project II (2)

Prerequisites: EG-ME 322L and 414. Completion of the design project initiated in EG-ME 414. Construction of prototype, model or components, testing of the proposed design, and preparation of a final design report. Teamwork and communications skills are emphasized. Oral presentation is required. (6 hours laboratory)

#### 421 Mechanical Design (3)

Prerequisites: EG-CE 301 or EG-ME 331 and EG-ME 335. Design and application of machine components such as brakes, clutches, gears, springs, fasteners, lubrication of machine elements, bearings, gaskets, seals, "O" rings, methods for study of impact, dynamic loading and fatigue; comprehensive treatment of failure, safety and reliability.

#### 426 Design of Thermal and Fluid Systems (3)

Prerequisite: EG-ME 407. Integration of fundamental principles of thermodynamics, fluid mechanics, heat transfer and related subjects in the design of thermal and fluid systems. The design process is applied to pumps, fans, turbines, boilers, and heat exchangers using economics and optimization with case studies.

#### 431 Mechanical Vibrations (3)

Prerequisites: EG-GN 205, EG-GN 308 and EG-CE 302. Modeling and analysis of single and multiple degrees of freedom systems. Response to forcing functions. Vibrations of machine elements. Design of vibration isolation systems. Balancing of rotating machinery. Random excitation and response of mechanical structures.

#### 438 Analytical Methods in Engineering (3)

Prerequisite: EG-GN 308. Ordinary and partial differential equations with constant and variable coefficients; orthogonal functions; conformal mapping; potential theory; engineering applications.

#### 447 Piping Selection and Piping Network Design (3)

Prerequisites: EG-ME 333 and EG-CE 301 or EG-ME 331. Pressure losses in piping networks; selection of piping based upon fluid, temperature, pressure and economic considerations; piping connections, fittings and components; stress analysis; review of national piping codes.

### 451 Thermal Environmental Conditioning and Control (3)

Prerequisites: EG-ME 304 and 407. The fundamentals of controlling the thermal environment within enclosed spaces. Theory and analysis of fundamental thermodynamics relating to thermal environmental engineering. Laboratory demonstrations of actual systems.

#### 452 Fluid Machinery (3)

Prerequisites: EG-ME 304 and 333.

Thermal and hydraulic design and analysis of pumps, fans, turbines and compressors.

Component selection, system design and performance evaluations.

### 454 Optimization of Engineering Design (3)

Prerequisite: EG-GN 308. Application of analytical and computer optimization techniques to engineering design problems.

Presentation of design as an optimization task. One dimensional minimization.

Unconstrained and constrained nonlinear programming. Approximation concepts.

Duality. Computer applications to design problems using a general purpose optimization program

#### 457L Intelligent Systems Laboratory (2)

Prerequisite: EG-EE 303L. Design and assembly of microprocessor-based mechanisms. Lab experiments encompass machine/high level programming, and interfacing of mircrocontrollers with sensors and actuators. Design project. (1 hour lecture, 3 hours laboratory)

#### 459 Plastics and Other Non-Metallics (3)

Prerequisite: EG-ME 202 or EG-ME 331. Simplified chemistry of plastics. Applications. Manufacturing processes. Methods for preventing deterioration of nonmetallic materials. Composites. Ceramics. Refractories. Wood. Destructive and nondestructive testing of nonmetallic materials.

#### 460 Failure of Engineering Materials (3)

Prerequisite: EG-ME 202 or EG-ME 331. Imperfections in solids; fracture initiation and crack propagation; dislocations; yield point phenomenon; fatigue; creep; ultrasonic effects; radiation damage; stress corrosion; hydrogen embrittlement; composite materials.

#### 461 Fabrication Methods (3)

Prerequisite: EG-ME 202 or EG-ME 331. Manufacturing processes. Metal joining processes. Casting, forging, powder metallurgy, machining and machining tools, finishing, coating, plating, non-metallic materials inspection and gaging, tolerances.

#### 462 Composite Materials (3)

Prerequisites: EG-ME 202 and EG-CE 301 or EG-ME 331. Application, mechanical properties and fabrication studies of fiber reinforced composite materials, stress analysis of laminated anisotropic composite structures. Studies of special problems unique to composites.

#### 463 Introduction to Robotics (3)

Prerequisites: EG-ME 335. Corequisite: 376A. Kinematic, dynamic, control and programming fundamentals associated with industrial robots and programmable manipulators. Trajectory planning, application of robotics in manufacturing and integration of robots into flexible manufacturing systems.

#### 475 Acoustics and Noise Control (3)

Prerequisite: Physics 227. Basic phenomena on the propagation, absorption and generation of acoustic waves, specification and measurement of noise, effects of noise on speech and behavior, legal aspects of industrial and building noise, principles and application of noise control.

#### 480 Human Factors in Engineering (3)

Prerequisite: approved study plan.

Principles of design for making products and systems faster, easier, and more efficient to use. Design project using these principles.

Principles consider human capabilities and limitation of senses and responses to sensory stimuli. Physiological, psychological and work factors are evaluated for design of equipment, work methods, environments and standards.

#### 483 Computer-Aided Manufacturing (3)

Prerequisites: EG-ME 376A or equivalent. Introduction to computer-aided manufacturing processes. CNC machines, robot and PLC programming. Design for CIM. Fixed and flexible manufacturing systems. Process planning and scheduling. Simulation software for manufacturing systems.. Laboratory experiments. (4 hours laboratory, 1 hour discussion)

#### 497 Senior Project (1-3)

Prerequisite: consent of instructor, adviser and head. Directed independent design project.

#### 499 Independent Study (1-3)

Prerequisite: approval of study plan by instructor, adviser and head. Specialized topics in engineering selected in consultation with and completed under the supervision of the instructor. May be repeated for credit.

#### 500 Nuclear Reactor Design (3)

Prerequisite: EG-ME 473. Nuclear systems design, analysis and operation, including: nuclear fuel cycle, nuclear reactor systems, safety and safeguards, the regulatory process fusion.

#### 508 Advanced Inviscid Fluid Flow (3)

Prerequisites: EG-GN 205, EG-GN 308 and EG-ME 333. Study of two- and three-dimensional potential flow theory. Sources, sinks, vortices, Rankine bodies, free jets, channel flow, air foils. Introduction to computational fluid dynamics. Complex potential and various transformation techniques are used.

#### 511 Advanced Mechanical Vibrations (3)

Prerequisite: EG-ME 431. Vibrations in rotating and reciprocating machines; noise and vibration in fluid machinery; continuous systems; random vibrations; transient and nonlinear vibration, computer applications.

#### 512 Advanced Mechanical Design (3)

Prerequisite: EG-ME 421 or equivalent. Advanced modern mechanisms. Analysis and synthesis of mechanisms. Advanced topics in computer-aided design of mechanical, thermal and fluid systems. Methodology of modern design. Optimization in design.

#### 516 Advanced Radiation Heat Transfer (3)

Prerequisite: EG-ME 407. Radiation heat transfer including the study of the geometric factor, black and real systems, and energy transfer in absorbing, scattering and emitting media, and radiation combined with other modes of energy transfer.

#### 520 Advanced Viscous Fluid Flow (3)

Prerequisite: EG-ME 333. The fundamental equations of viscous fluid flow. Viscous drag estimation. Drag reduction methods.

Introduction to instability and transition.

#### 524 Advanced Thermodynamics (3)

Prerequisite: EG-ME 304, Equilibrium and stability criteria, third law of thermodynamics, multiple component systems, ionization, equilibrium reaction, lower core "ideal" gases, thermodynamic cycles.

#### 525 Thermolasticity (3)

(Same as EG-CE 525)

#### 526 Advanced Convective Heat Transfer (3)

Prerequisite: EG-ME 407. Convective heat transfer; heat transfer in external and internal flow fields for both laminar and turbulent fluid flow; applications.

#### 530 Advanced Strength of Materials (3)

Prerequisite: EG-ME 421. Energy methods. Castigliano's Theorem: curved beams, beams on elastic supports, thickwall cylinders, shrink fits, localized stress, column instability, failure theories, bearings.

#### 536 Advanced Conduction Heat Transfer (3)

Prerequisite: EG-ME 407. Conduction heat transfer; Bessel and Legendre functions, Fourier series solutions, heat sources and sinks, multidimensional problems, transient systems and numerical methods (finite difference and finite element methods).

#### 538 Advanced Engineering Analysis (3)

Prerequisites: EG-GN 403 and EG-ME 438. Partial differential equations in engineering, numerical techniques, integral equations, engineering applications.

#### 540 Computer Applications In Engineering Design (3)

Prerequisite: EG-GN 403. Computers and microprocessors in engineering design.

Design methodology, modeling and simulation. Geometric modeling. Design optimization. Expert systems in engineering design.

Generalized programs and simulation languages are emphasized.

#### 541 Finite Element Method for Mechanical Engineers (3)

Prerequisites: EG-ME 410 and EG-GN 403. Matrix formulation of basic equations in steady state and transient heat conduction. Elements and interpolation functions. Nonlinear problem formulation. Finite element computer programs in heat transfer, fluid dynamics and design.

### 554 Applied Optimal Mechanical Design (3)

Prerequisite: EG-ME 454 or equivalent.

Formulation of design optimization problems in mechanical engineering. Review of mathematical programming methods. Practical aspects of optimization. Design of complex mechanical systems. Individual projects will be assigned to apply optimization techniques to an engineering system or components.

#### 576 Advanced Dynamics & Control of Mechanical Systems (3)

Prerequisite: EG-ME 411. Advanced study of the dynamics and control of mechanical systems including: state space modeling, Lyapunov stability, modern design techniques and case studies.

#### 597 Project (1-6)

Prerequisite: consent of adviser.

#### 598 Thesis (1-6)

Prerequisite: consent of adviser.

#### 599 Independent Graduate Research (1-3)

Prerequisite: classified graduate status.

Open to graduate students only by consent of Mechanical Engineering Graduate Committee.

May be repeated for credit only upon approval of this committee.

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#### INTRODUCTION

Military Science provides a dynamic dimension to the university by offering an unmatched hands-on leadership and management education. Military Science is also a university endorsed co-ed club and offers various extra-curricular teams and activities such as: "Ranger Challenge" (intercollegiate competition based on physical fitness and agility, rifle marksmanship and map reading/land navigation), Paintball, one Field Training Exercise (overnight bivouac) per semester,

rapelling demonstrations and a Color Guard team (presents flags at ceremonies and events) as well as several other exciting activities. All curriculum and activities are designed to build and enhance lead-

ership, man-



agement and team building skills that apply in both military and civilian sectors and last a lifetime.

Military Science courses are accredited and available to students in all academic disciplines. Full-time students are also eligible to enroll as cadets in accordance with university and Department of the Defense policies. Several competitive financial assistance programs are available which include: three-year and two-year scholarships, reserve forces and National Guard duty, GI Bill and loan repayment options. Additionally contacted cadets receive \$1,500 per year.

Upon successful completion of the two or four-year Reserve Officers Training Corps (ROTC) contract program, cadets are commissioned as second lieutenants in the United States Army, United States Army Reserves or National Guard.

#### Four-Year Program

This program is comprised of a lower division "Basic Course" and an upper division "Advanced Course." The Basic Course refers to first and second year courses (MLSC 101, 102, 201 and POSC 352) which are designed for beginning students who want to try Reserve Officers Training Corps (ROTC) without obligation. Once the Basic Course is completed, students qualify for entry into the upper-division Advanced Course (MLSC 301, 302, 401, 402) which prepares them to be commissioned as officers in the United States Army Reserves or National Guard. Upon entry into the Advanced Course, cadets are required to sign a contract with the Department of the Army agreeing to complete the ROTC program and accept a commission as a second lieutenant. Once the contract is signed, Advanced Course cadets will receive \$1,500 per year along with free uniforms and books for all military science courses.

#### Two-Year Program

This program is for those students who have at least four semesters of work remaining on campus as either an undergraduate or graduate student, and who did not participate in ROTC earlier. These students enter the Advanced Course of the program after attending a five week

#### PROFESSOR OF MILITARY SCIENCE:

Major E. Adrienne van Dooren

#### **ENROLLMENT COUNSELORS:**

Captain Salvatore J. Petrovia and Captain Timothy W. White

#### SENIOR MILITARY INSTRUCTOR:

Master Sergeant Daniel P. Ciarrocchi

#### **DEPARTMENT OFFICE:**

Faculty Terrace North 101-106, Phone: (714) 278-3007

#### **PROGRAMS OFFERED:**

Summer Leadership Internships (no military obligation)

Adventure/leadership training and physical training/weight lifting (no military obligation)

Minor in Military Science

Second Lieutenant Commission (U.S. Army, Reserves or National Guard)

paid summer leadership internship or providing proof of completion of Military Basic Training or three years JROTC. Students enrolled in the two-year program are eligible for contracting under the same benefits, requirements and guidelines as the four-year students.

#### **MINOR IN MILITARY SCIENCE**

The Military Science Minor is comprised of a combination of courses from many disciplines totaling 24 units. Students interested in this program should seek additional information from the Military Science Department.

#### General Requirements

All enrolled cadets will take courses corresponding to their academic standing in order to remain academically aligned. Labs must be taken with corresponding lecture class.

MLSC 100 Army Physical Training (1)

(All cadets repeat this class each semester.) KNES 146 Weight Lifting (1)

(For cadets desiring extra conditioning.)

Freshmen:

MLSC 101 Fundamentals of Leadership and Mgmt (2)

MLSC 101L Leadership Laboratory (1)

MLSC 102 Principles of Leadership and Mgmt (2)

MLSC 102L Leadership Laboratory (1)

Sophomores:

Course in Team Building (2)

MLSC 201L Leadership Laboratory (1)

Political Science 352 American Foreign Policy (3)

MLSC 202L Leadership Laboratory (1)

Juniors

MLSC 301 Leading Small Organizations I (2)

MLSC 301L Leadership Laboratory (1)

Course in Leading Small Organizations II (2)

MLSC 302L Leadership Laboratory (1)

ROTC Advanced Camp

Seniors

Course in Advanced Military Leadership (2)

MLSC 401L Leadership Laboratory (1)

MLSC 402 Transition to Lieutenant (2)

MLSC 402L Leadership Laboratory (1)

Optional:

MLSC 499 Independent Study (3)

#### **MILITARY SCIENCE COURSES**

#### 100 Army Physical Training (1)

Required each semester of all students in the Military Science Program. Emphasizes the principles of cardiorespiratory and muscular endurance, muscular strength, flexibility, and military technique. Designed to improve the student's ability to develop and lead an organizational level physical training program. May be repeated for credit.

### 101 Fundamentals of Leadership and Management (2)

Learn fundamental concepts of leadership and management in the classroom with practical application in outside activities. Develop interpersonal, organizational and motivational skills necessary for leaders of the 21st century. This is useful for both corporate and military career preparation; however, students will become familiar with basic military skills and customs.

#### 101L, 102L, 201L, 202L Leadership Laboratory (1,1,1,1) (Formerly 201A)

Build self-confidence and team-building leadership skills that can be applied throughout life. Learn basic skills then practice them through hands-on exercises. Different roles for students at different levels in the program. Required of all students in associated Military Science courses.

#### 102 Principles of Leadership and Management (2)

Prerequisite: Military Science 101 or consent of the instructor. Learn to apply principles of effective leadership. Reinforce self-confidence through participation in physically and mentally challenging exercises. Develop communication skills to improve individual performance and group interaction. Relate ethical values to the effectiveness of a leader.

#### 301 Leading Small Organizations I (3)

Improve knowledge of senior noncommissioned officer duties and the officer's relationship to the NCO. Course content includes: principles of leadership, officer and NCO roles, training management, command climate, staff organization and functions.

#### 301L, 302L, 401L, 402L Leadership Laboratory (1,1,1,1) (Formerly 201B)

Build self-confidence and team-building leadership skills that can be applied throughout life. Learn basic skills then practice them through hands-on exercises. Different roles for students at different levels in the program. Required of all students in associated Military Science courses.

### 402 Transition to Lieutenant (3) (Formerly 325)

Prerequisite: Cadet at Military Science Level IV (senior) status. Refine counseling and motivating techniques. Examine aspects of tradition and law as they relate to leading soldiers as an officer in the Army. Study the responsibilities of officer and officials. Prepare for a future as a successful Army lieutenant.

#### 499 Military Science Independent Study (3)

Independent study provides the student with the opportunity to meet Army commissioning requirements when the normal course of study is not possible due to course sequencing. Students will be assigned special projects which will require the demonstration of military principles.

### music

#### INTRODUCTION

Music is one of the most rewarding of all human endeavors, and the faculty and students in the Department of Music share a deep love for their art and a common desire to achieve excellence in it. The department offers a wide spectrum of degree programs and options with an overall emphasis in the area of performance. The curriculum provides basic preparation for careers in music or further graduate study, and is designed to provide a balanced education in

the many facets of musical experience. Artistteachers offer instruction in all areas of performance, while practicing composers and theorists teach courses in theory and active musicologists provide instruction in history and literature. It is the goal of the department to



develop each student's musical and intellectual potential to the highest level of individual capability. California State University, Fullerton is fully accredited by the National Association of Schools of Music, and the Western Association of Schools and Colleges.

#### FACULTY

John Alexander, Martha Baker, Eduardo Delgado, Marc Dickey, Mitchell Fennell, Mark Goodrich, David Grimes, Carole Harrison, Leo Kreter, Gary Maas, Todd Miller, Gordon Paine, Katherine Powers, Lloyd Rodgers, Ernest Salem, Preston Stedman, Laurance Timm, Robert Watson, Vance Wolverton

#### **CREDENTIAL INFORMATION**

The Department of Music offers course work leading to a CSUF Subject Matter Preparation Program in Music for the Ryan Single Subject Teaching Credential. For details, contact the Office of Admission to Teacher Education and the coordinator of music education.

The Department of Music offers supplementary authorizations for the Ryan Single Subject Teaching Credential in Instrumental Music and in Vocal Music. A supplementary authorization in music is offered for the Ryan Multiple Subject Teaching Credential. For details contact the Office of Admission to Teacher Education.

The requirements for the Subject Matter Preparation Program (formerly "Waiver" Program) will change effective September 1, 1999. Please contact the Coordinator of Music Education for information.

#### **ADVISEMENT**

All music majors are required to obtain advisement each semester. Area coordinators serve as advisers, and students are assigned according to their area of concentration.

#### **DEPARTMENT CHAIR**

Gordon Paine

#### **VICE CHAIRS**

David Grimes Gary Maas

#### **DEPARTMENT OFFICE**

Performing Arts 262

#### **PROGRAMS OFFERED**

Bachelor of Arts in Music

Liberal Arts

Music Education

Music History and Theory

Bachelor of Music

Composition

Instrumental

Keyboard

Voice

Accompanying

Minor in Music

Master of Arts in Music

Music History and Literature

Music Education

Master of Music

Performance

Theory-Composition

Single Subject (Secondary) Credential

### REQUIREMENTS OF THE MUSIC DEPARTMENT

- 1. All entering music majors are enrolled in the Bachelor of Arts degree program for at least the first semester of residence.

  Students may request a change in their degree objective to the Bachelor of Music upon completion of at least one semester of course work at the university, successful completion of a jury examination, and recommendation of the faculty in the appropriate area of concentration.

  Enrollment in the Bachelor of Music program is limited.
- Upon entering the university as a new music major or upon officially changing to a major in music, each student will present an audition in the appropriate principal performance area (instrument or voice) and a placement audition for class piano.
- 3. All students must pass proficiency examinations in traditional harmony (sightsinging, dictation, keyboard, and paperwork) and piano before being approved for graduation. Transfer students will fulfill the theory requirement by passing the entrance examination in theory; first-time students and transfers with insufficient preparation at entrance will normally take the examination in Music 211. The piano-proficiency requirement may be met by completion of Music 282B with a grade of "C" or better. Students planning to enter a teaching credential program are required to earn a "B" or better. Students whose principal performance area is piano satisfy the piano proficiency requirement upon reaching 300 level in performance.
- 4. Each music major must declare a single principal performance area, which must be approved by the faculty of that area upon completion of the entrance audition. A successful audition is required for the student to receive state-funded applied-music instruction at the 100 (freshman) level. Instruction must commence in the student's first semester as a music major. The major of students whose audition does not qualify them to receive instruction at the 100 level will be changed administratively from music to "undeclared." In order to be approved for graduation, each student must achieve at

- least the 300 level of proficiency in the principal performance area. B.A. Liberal Arts-option students who elect project alternative 2 (Music 497: Project) need reach only the 200 level.
- 5. Each music major is required to present one or more recitals or a project appropriate to the degree program before being approved for graduation. The project option is available only in the Liberal Arts and Music History and Theory options of the Bachelor of Arts degree. Recitals at the 300 level of performance are designated Music 398; recitals at the 400 level of performance are designated Music 498. See the sections below on the Liberal Arts and Music History and Theory options for recital/project information applicable to those degrees.
- 6. Undergraduate music majors are required to participate in a major performance ensemble (Music 361) and complete it with a grade of "C" or better each semester of residence as follows:
  - a. Students who declare a wind instrument or percussion as the principal performance area must register for band; students who declare a string instrument as the principal performance area must register for orchestra; students who declare voice as the principal performance area must register for chorus. A student whose principal performance area is keyboard or classical guitar must register for one of the above major performance ensembles, according to the student's qualifications and subject to audition.
  - A music major who has been admitted into the Bachelor of Music program in composition, keyboard, or classical guitar and who has participated in a major performance ensemble for at least five semesters (a minimum of two semesters at California State University, Fullerton), may thereafter substitute chamber music and/or small performance ensembles (Music 362, 363, 386) to satisfy the departmental major performance ensemble (Music 361) requirement.
  - The educational purpose of the requirement that all music majors participate in an appropriate major performance ensemble during each semes-

- ter of residence is to permit each student to experience the highest level of ensemble music-making commensurate with the student's skill. To this end, the CSUF choir and band programs are of the traditional graded structure. University Singers (361E) and Wind Ensemble (361F) are for the more advanced students; Men's Chorus (361M), Symphonic Band (361C) and Women's Choir (361W) are for students of less skill or experience. Placement in bands, orchestra, and choirs will be based on student ability as determined by the directors of those ensembles. Music majors will be assigned to the ensemble for which they are best qualified. A student does not have the option of satisfying the requirements for participation in a major performance ensemble by enrolling in an ensemble intended for those of less ability or experience.
- d. A student who has completed statefunded lessons, who is not taking lessons at all, or who is taking fewer than six units of music must still be in an appropriate major performance ensemble.
- Applied-music study in the principal performance area is required as stipulated under the requirements for each degree program. The following conditions apply:
  - a. If a student pursuing the Bachelor of
    Arts degree or the Bachelor of Music
    degree reaches the 300 level in the
    principal performance area before the
    required units in applied music are
    completed, Music Department electives may be substituted for the
    remaining applied-music units.
  - b. In addition to the six units of applied music required in the principal performance area, Bachelor of Music students in the Composition concentration must complete six units of applied composition (including the 498 recital) after taking Music 422. The 498 recital will consist of a presentation of the student's own compositions.
  - Students pursuing the Bachelor of Music degree in any option except Composition must achieve the 300 level in performance before giving the

398 recital and 400 level in performance before giving the 498 recital. Recital approval will be given only to students who are currently studying with CSUF applied music faculty. Specific information on jury-level criteria is available from the Music Department office.

d. In order to qualify for state-funded

applied music (including Music 398 and Music 498 recitals), an undergrad uate student must currently be enrolled for a minimum of six units of music classes (including applied music), at least two of which must be in an academic area (any course other than performing ensembles and applied music). In addition, the student must be enrolled in the appropriate major performance ensemble, as stipulated in section 6 above. If the student receives a grade of "F" or "U" in applied music or in the major performance ensemble, or if the student fails to complete six units of music classes as described above, applied lessons will be with held in the subsequent semester. (A

Students are limited to a maximum of three semesters of applied music at a given level of performance.

Applied music may be denied for failure to make satisfactory progess within the degree.

student needing fewer than six units

of music classes to graduate will not

be required to take extra units to

meet the six-unit requirement and

will receive applied instruction if

otherwise qualified.)

- e. Students in the B.A. program are eligible for a maximum of eight units of state-funded applied music (398 and 497 included). B.M. students are eligible for a maximum of 14 units (398 and 498 included).
- 8. Senior transfer students or graduate students in music entering to complete the Single Subject Preparation Program are expected to complete a minimum of one semester of upper-division course work in music with a GPA of at least 3.0 before they may be approved for admittance to teacher education. Required courses and competencies must be satisfied before the

- faculty committee will consider endorsing the student's acceptance into the credential program.
- 9. To be approved for graduation, a music major must maintain a 2.5 GPA in all music coursework that is to be used to meet degree requirements. In addition, a student must earn a grade of "C" or better in all music courses required for the Bachelor of Arts in Music or Bachelor of Music degree.
- All requests for exceptions to departmental or curricular requirements must be directed by petition to the department chair.

#### **MUSIC DEGREE PROGRAMS**

The Department of Music offers a variety of courses that lead to baccalaureate and graduate degrees in teaching and other professions. The baccalaureate degree may be earned in either of two degree programs (Bachelor of Arts or Bachelor of Music). Within these programs, a student will pursue a concentration in Liberal Arts, Music History and Theory, Music Education, Performance, Composition, or Accompanying.

#### **BACHELOR OF ARTS IN MUSIC**

The Bachelor of Arts in Music shall consist of no fewer than 50 units of music, of which at least 29 shall be upper-division (300 level and above). All Bachelor of Arts students must complete the basic requirements listed immediately below and must select and complete the requirements listed in one of three concentrations: Liberal Arts, Music History and Theory, or Music Education.

#### Core Requirements (35 units)

Music theory (Music 111, 111L, 112, 112L, 211, 211L, 319, 320) (14 units)

Music history and literature (Music 108, 151; 351A,B,C) (13 units)

Principal performance area (applied music) (4 units)

Major performance ensemble (Music 361A,C,E,F,M,R,W) (4 units)\*

\*Required for all music majors every semester of residence. (See "Introduction," item 6.)

### LIBERAL ARTS CONCENTRATION (50 UNITS)

This concentration allows a student to take an academic major in music without being involved in a program of professional preparation. The degree emphasis is historically the oldest such study plan in music in higher education and represents a liberal-arts response to the highly professional program of the Bachelor of Music degree.

Core requirements for B.A. degree (35 units)

Music theory (Music 316 or 418, 323 or 422)

(4 units)

Conducting (Music 382A or 383A) (2 units) Senior project (Music 398 or 497) (1 unit) Music literature (from Music 453A through 459A inclusive) (2 units)

Electives in Music (6 units)

Minimum of 6 upper division; no more than 2 units of Music 193-493)

Senior Project

Two alternatives, each with a different focus and prerequisite, are available to the student:

Alternative 1 (Music 398: Recital): Prerequisite is achievement of 300 appliedmusic level in the area of principal performance one semester before the semester in which the student plans to present the recital. The student will present a brief recital in a regular recital time or in the appropriate workshop (at faculty discretion).

Alternative 2 (Music 497: Project):
Prerequisite is achievement of 200 appliedmusic level two semesters before the semester in which the student plans to present the project. The student will prepare a special project in the senior year that will culminate in a lecture, lecture-recital, or other form of public presentation. To the greatest extent possible, this project should be an independent investigation into an area of special interest and should involve minimal faculty guidance. The public presentation will be evaluated by a faculty committee, as is the case with senior recitals, and must be approved by that committee prior to graduation.

In the case of both alternatives, the recital or project will be included when calculating the student's quota of state-funded appliedmusic lessons.

### MUSIC HISTORY AND THEORY CONCENTRATION (50 UNITS)

This concentration is designed as a balanced program in music history and theory and provides suitable preparation for advanced degrees in theory, literature, or musicology. It also provides basic preparation for advanced study in other fields, such as musical acoustics, music therapy, ethnomusicology, library science in music, and music in industry and recreation.

Students seeking the concentration in Music History and Theory must submit a paper to the music history or theory coordinator not later than the beginning of their junior year. Acceptance into the degree program is contingent on the submission of a satisfactory paper.

Allied requirements for the Music History and Theory concentration:

- Twenty units in a secondary academic area (not music, but related to the student's project or useful to prepare the student for future graduate work in music).
   The choice of a secondary academic area must be approved in writing by the coordinators of music history and theory.
   Suggested areas: art, English, theatre, history, physics (acoustics), anthropology, languages, or computer science.
- Foreign language proficiency, preferably German, to be satisfied as described under the requirements for the Bachelor of Music, Voice concentration.

Core requirements for the Bachelor of Arts (35 units)

Music theory (Music 316, 419) (4 units)
Conducting or composition (Music 382A or 383A or 422) (2 units)

Project-proposal preparation (Music 499) (1 unit)

Music history or theory project (Music 497) (1 unit)

Electives in music (7 units)

#### **MUSIC EDUCATION CONCENTRATION**

#### Piano Pedagogy Emphasis (63 units)

The emphasis in piano pedagogy is designed to provide in-depth preparation for individual and group piano instruction and will not lead to a teaching credential for the California public schools.

Core requirements for Bachelor of Arts (35 units)

Keyboard Ensemble (363K) (1 unit)

Applied piano (393) (3 units)

Conducting (382A or 383A) (2 units)

Recital (398) (1 unit)

Piano Literature and Interpretation (454A, B) (4 units)

Piano Pedagogy/Practicum (467A,B,C; 477) (9 units)

Piano Pedagogy/Observation and Internship (466) (3 units)

Advanced MIDI or harpsichord or organ (327 or 372 or 373) (2 units)

Functional Skills for Keyboard Majors (385K) (2 units)

Piano-Vocal Collaboration (386) (1 unit)

### Instrumental, Vocal-Choral, General Music Emphases

The emphases in instrumental, vocalchoral, and general music are designed to provide in-depth preparation for teaching in the California public schools under the provisions of the Teacher Preparation and Licensing Law of 1970 (Ryan Act).

#### Instrumental Emphasis (50 units)

Core requirements for the Bachelor of Arts (35 units)

Orchestral instruments (Music 281B,P,S,W) (4 units)

Music theory (Music 323) (2 units)

Conducting (Music 382A,B) (4 units)

Chamber music (363B,G,S,W,X) (4 units)

Recital (Music 398) (1 unit)

#### Vocal-Choral Emphasis (50 units)

Core requirement for the Bachelor of Arts (35 units)

Orchestral instruments (Music 284) (1 unit)

Conducting (Music 383A,B) (4 units)

Literature and pedagogy (Music 354, 468) (4 units)

Chamber music (Music 363V) (2 units)

Recital (Music 398) (1 unit)

Electives in Music (3 units)

#### General Music Emphasis (50 units)

Core requirements for Bachelor of Arts (35 units)

Orchestral instruments (Music 284) (1 unit)

Conducting (Music 383A,B) (4 units)

Music and Child Development (Music 333) (3 units)

Public School Choral Materials (Music 354) (2 units)

Chamber music (Music 363V) (1 unit)

Recital (Music 398) (1 unit)

Electives in Music (3 units)

#### **CREDENTIAL INFORMATION**

Students desiring a California teaching credential in music must complete the following courses prior to enrolling in the professional education program as required by the Department of Secondary Education.

#### Instrumental Emphasis (13 units)

Music Education 295 (1); 394A,B (2,2); 395A (1); Music 283 (1); 353 (2); 383A (2); 444 (2)

#### Vocal-Choral Emphasis (12 units)

Music Education 295 (1), 394B (2), 395B (1), 404 (3), Music 380A (1), 461 (2), 382A (2)

#### General Music Emphasis (10 units)

Music Education 295 (1), 394B (2), 395B (1), 404 (3), Music 380A (1), 468 (2)

Students who wish to earn the preliminary single subject credential in music in addition to the Bachelor of Arts-Music Education must complete the following 30 units: MuEd442 (3), MuEd449E (3), professional education courses SecEd440F (4), SecEd440S (2), SecEd440M (3), SecEd440R (3), student teaching MusEd449I (10), and MusEd449S (2). The preliminary credential is issued for a maximum of five years and is not renewable

Students who wish to earn the clear credential must also complete CPR certification, HE355 (3), and SPED411 (3). The clear credential is good for five years and may be renewed by completing 150 hours of inservice training.

Prior to admission to teacher education, the student must reach 300 level in the principal performance area and pass functional examinations in keyboard and voice. The functional examination requirements may also be met by completing Music 282B (piano) and Music 283 (voice) with minimum grade of "B".

#### **RACHELOR OF MUSIC**

This degree program is designed to provide training for highly gifted students who show promise and capability of becoming professional performers and composers.

The degree consists of 132 semester units. A minimum of 70 semester units in music are required, at least 32 of which must be upper division.

# Core Requirements for the Bachelor of Music (38 units)

Music theory (Music 111, 111L, 112, 112L, 211, 211L, 319, 320) (14 units)

Music history and literature (Music 108; 151; 351A,B,C) (13 units)

Principal performance area (applied music) (6 units)

Major performance ensemble (Music 361)\* (4 units)

Recital (Music 498) (1 unit)

# COMPOSITION CONCENTRATION (70 UNITS)

Core requirements for the Bachelor of Music (38 units)

Music theory (Music 316, 418, 323, 419, 420, 422) (12 units)

Conducting (Music 382A, 383A) (4 units)

Applied composition (5 units)

Electives in music (11 units)

# Allied requirement for composition concentration:

Proficiency in one foreign language (French, German, or Italian), to be satisfied as described under the requirements for the Bachelor of Music, Voice concentration)

\*Required of all music majors every semester of residence. (See "Introduction," item 6.)

## **INSTRUMENTAL CONCENTRATION**

# Orchestral Instruments Emphasis (70 units)

Core requirements for the Bachelor of Music (38 units)

Music theory (Music 316, 323, 422) (6 units)

Principal performance area (applied music) (6 units)

Recital (Music 398) (1 unit)

Conducting (Music 382A,B) (4 units)

Chamber music (Music 362D,E,M,Y and/or 363B,G,S,W,X) (6 units)

Electives in music (9 units)

# KEYBOARD CONCENTRATION (70 UNITS)

Core requirements for the Bachelor of Music (38 units)

Music theory (Music 418, 422) (4 units)

Music literature (Music 454A,B) (4 units)

Conducting (Music 382A or 383A) (2 units)

Recital (Music 398) (1 unit)

Principal performance area (applied music) (6 units)

Chamber music (Music 362D,E,M,Y and/or 363B,G,K,S,W,X) (3 units)

Piano-Vocal Collaboration (Music 386) (1 unit)

Pedagogy (Music 467A,B,C) (6 units)

Harpsichord or organ class (Music 372 or 373) (1 unit)

Electives in music (4 units)

# **VOICE CONCENTRATION (70 UNITS)**

Core requirements for the Bachelor of Music (38 units)

Music theory (Music 316, 422) (4 units)

Music literature (Music 456; 457A,B) (7 units)

Recital (Music 398) (1 unit)

Principal performance area (applied music) (6 units)

Opera Theatre (Music 361D) (2 units)

Diction (Music 380A,B,C) (3 units)

Conducting (Music 383A) (2 units)

Pedagogy (Music 468) (2 units)

Electives in music (5 units)

# Allied requirement for voice concentration:

Proficiency in two foreign languages (to be chosen from French, German, and Italian), each to be satisfied by one of the following:

- a. Four years' study of foreign language at the secondary school level, or
- b. Passing an examination given by the Department of Foreign Languages and Literatures, or
- Completing the second semester of the beginning university sequence of a foreign language.

# ACCOMPANYING CONCENTRATION (70 UNITS)

Core requirements for the Bachelor of Music

Music theory (Music 316, 418, 422) (6 units)

Music literature (Music 457A) (2 units)

Principal performance area (applied music)
(5 units)

Chamber music (Music 363B,G,K,S,W,X) (2 units)

Harpsichord class (Music 372) (1 unit)

Organ class (Music 373) (1 unit)

Functional skills (Music 385K) (2 units)

Piano-Vocal Collaboration (Music 386) (2 units)

Conducting (Music 383A) (2 units)

Diction (Music 380A,B,C) (3 units)

Recitals (Music 398, 498\*) (2 units)

Electives in music (4 units)

\*Two 498 recitals are required. The other is listed under "Core Requirements."

#### MINOR IN MUSIC

The minor in music may be pursued by persons whose majors are in other fields. A maximum of 14 lower-division units may be included in work counted toward the music minor. The minor requires a minimum preparation of 20 units (at least five in residence at CSUF) as follows:

Theory of music (selected from Music 101, 110, 111, 111L, 112, 112L, 211, 211L, or any 300- or 400-level theory classes for which the student is qualified) (6 units)

Music history and literature (Music 100, 103, 151, 302, 303, 304, 305, 350, 352, 355, or 351A,B,C; or courses at the 400 level for which the student is qualified) (5-6 units)

Applied techniques (selected from Music 182, 183; 184 A,B; 185 A,B; 281B,P,S,W; 282A,B; 283, 284; 326, 327; or any course in ensemble, conducting, piano or voice at the 300 or 400 level for which the student is qualified). Music minors may also elect to take private instruction in applied music (Music 193, 293, 393, 493) through University Extension for an additional fee (8-9 units).

# MASTER OF MUSIC AND MASTER OF ARTS IN MUSIC

Two graduate degrees in music are offered in the Department of Music: the Master of Music and the Master of Arts. Each degree seeks to serve a special group of graduate students. For those who intend to pursue advanced degrees beyond the master's level, the Master of Music normally leads to the D.M.A. The Master of Arts normally leads to the Ph.D. or the Ed.D.

# Admission to Graduate Standing: Conditionally Classified

All applicants admitted into the music program enter in conditionally classified graduate standing. University requirements include:

- (a) baccalaureate from an accredited institution;
- (b) a grade-point average of at least 2.5 in the last 60 semester units attempted;
- (c) good standing at the last college attended; and
- (d) for foreign students, a minimum TOEFL score of 560.

Each applicant must also present a satisfactory audition, submit an acceptable written essay in the area of specialization, and pass entrance exams in music theory, music history, and writing. A student whose audition is unsatisfactory or who fails to meet satisfactorily the entrance exam requirements shall be removed from "conditionally classified" status.

# Graduate Standing: Classified

A graduate student may apply for classified graduate standing upon attainment of the following prerequisites: (a) completion of all requirements for conditionally classified standing as described above; (b) an undergraduate major in music (or the equivalent of a major; i.e., 29 undergraduate upper-division units in music appropriate to the student's desired graduate emphasis) according to the student's desired graduate emphasis with a minimum grade-point average of 3.0 in the major; and (c) satisfactory completion of Music 500 Introduction to Graduate Study in Music. One objective of Music 500 is the preparation of a study plan listing all courses required for completion of the degree. This study plan must receive the approval of the coordinator of the student's area of specialization, the Music Department

graduate program adviser and the Dean of Graduate Studies. Opportunity is given the student to remove any deficiencies in undergraduate-level preparation. Courses taken to satisfy deficiencies usually will not be included on the student's study plan and thus will not count toward the master's degree.

Students who do not pass one or more of the entrance examinations shall take and complete specified coursework with a grade of "A" or "B" or may retake the complete exam at its next administration.

Writing skills will be assessed at entrance using the student's entrance essay and the essay portion of the Music history examination. Those who do not initially possess the expected proficiency will be required to achieve it before taking Music 500. This may include taking appropriate coursework stipulated by the Music Department. Writing proficiency will be assessed further in Music 500. Students whose writing is inadequate in Music 500 will have to independently improve their skill to a satisfactory level before classification. Completion of Music 500 with a minimum grade of "B" satisfies the writing proficiency requirement. Prospective students must also pass entrance requirements in music theory and music history.

The music theory requirement may be met by passing the entrance examination or by passing music 411 with a grade of "B."

The music history requirement may be met by passing the entrance examination or Music 450 with a grade of "B." The music history requirement must be satisfied before a student may take any 500-level music history seminar.

## MASTER OF MUSIC

The Master of Music provides an avenue of graduate study for the highly creative composer or for the superior performer in a program tailored to each student's demonstrated talent and to each student's professional development. Applicants must have completed either a Bachelor of Music degree in performance or composition or show evidence of equivalent rigorous training. For the entrance audition, applicants in performance must demonstrate proficiency equivalent to the 400 level, the level expected of a performance major in the Bachelor of Music program at the time of the senior recital;

composition applicants must submit a portfolio of scores for examination by the theorycomposition faculty. For admission to the
programs in choral or instrumental conducting, applicants must show evidence of substantial conducting course work at the
undergraduate level plus practical experience. Further, to audition for entrance into
the program, each choral applicant must
demonstrate conducting proficiency with a
mixed chorus and each instrumental applicant must demonstrate conducting proficiency with a band or orchestra. Under
exceptional circumstances, a video tape may
be substituted for the live audition.

## Study Plan

The Master of Music degree program requires a minimum of 30 units of graduate study in music, at least half of which must be in 500-level courses. Music 500, Introduction to Graduate Study in Music, must be taken within the first nine units. At least one recital is required, in addition to a corollary written essay. Under certain circumstances, and with departmental approval, a thesis may be substituted for the recital and written project.

# MASTER OF ARTS IN MUSIC

Two options are offered in this degree program: Option I in music history and literature and Option II in music education. Both options provide for breadth of advanced study as well as an area of specialization. The degree is for students preparing for college teaching careers in music history or music education, or for teachers and supervisors of music at the elementary or secondary level. For the entrance audition in history and literature, applicants must submit an example of a previously written research paper on a musical subject, while applicants to the program in music education must submit a 30-minute tape demonstrating their teaching technique in a classroom situation. Admission to the Music Education program may be restricted. Please contact the Music Department for current information.

## Study Plan

The Master of Arts degree program requires a minimum of 30 units of graduate study, no more than nine of which may be outside the field of music and at least half of which must be in 500-level courses in the major.

Option I in history and literature requires (a) reading ability in a foreign language, preferably German or French, prior to advancement to candidacy, (b) a thesis, and (c) at least six units of study in a non-music field supportive of the major. Students in Option II, music education, shall complete a thesis, project, or comprehensive examination. Students selecting the comprehensive examination (0 units) shall complete three additional units in the concentration. Eight semester units are common to both options (Music 500, 3 units; Music 361-363, 2 units; and Music 552-555, 3 units). Music 500, Introduction to Graduate Study in Music, must be included within the first nine units taken as a graduate student under both options.

For further details or advisement, consult the Department of Music graduate program advisor.

#### **MUSIC COURSES**

# 100 Introduction to Music (3)

Musical enjoyment and understanding through a general survey of musical literature representative of a variety of styles and performance media. Music will be related to other arts through lectures, recordings, and concerts. For non-music majors.

# 101 Music Theory for Non-Music Majors (3)

Basic theory and practical applications to improve music performance and listening skills. Includes sightsinging and relationship to keyboard and simple melodic instruments. For non-music majors.

## 103 History of Rock (3)

Rock music around the world; its origins and the development of national styles. Emphasis on listening. For non-music majors.

#### 108 Introduction to Music Studies (2)

An introduction to music study at the university level. The course concentrates on basic listening skills and a vocabulary of musical terminology. It also presents information about the concert world, sister arts, and career options in music. For music majors and minors only.

## 110 Foundation of Music (2)

Prerequisite: ability to read music.

Intensive study of the elements of music:
notation, rhythm, meter, melody, scales, key
signatures, intervals, and chord structure.

Exercises in writing music, technical analysis.

Open to all qualified students, though
directed toward the music major or minor.

## 111, 112 Diatonic Harmony (2)

Includes scales and intervals, triads and their inversions, harmonizations, non-harmonic tones, modulation, and seventh chords. Co-enrollment in the corresponding section of Music 111L or 112L is required for music majors and is recommended for others.

# 111L, 112L Diatonic Harmony Laboratory (1,1)

Application of materials in Music 111 and 112. Activity to include sightsinging, dictation, and keyboard exercises. (2 hours activity)

# 151 Survey of Western Musical Literature (2)

Prerequisite: Music 108 or consent of instructor. Literature of music in Western civilization. Students should be able to read music in order to analyze form and style.

# 182 Piano Class for Music Majors (2)

Prerequisite: Music majors only.

Keyboard skills for students whose major performance instrument is not piano. (3 hours activity)

# 183 Voice Class for Non-Music Majors (1)

Beginning and elementary techniques in singing for the non-music major. May be repeated for credit. (2 hours activity)

# 184A Piano Class for Non-Music Majors (1)

Beginning and elementary piano skills for the non-music major. (2 hours activity)

# 184B Piano Class for Non-Music Majors (1)

Prerequisite: Music 184A or consent of instructor. Continuation of 184A.

# 185A Guitar Class for Non-Music Majors (1)

Beginning and elementary classical guitar techniques for the non-music major. May be repeated for credit. (2 hours activity)

## 185B Guitar for Non-Music Majors (1)

Prerequisite: Music 185A or consent of the instructor. Elementary classical guitar techniques for the non-music major. Continuation of Music 185A. May be repeated for credit. (2 hours activity)

# 193, 293, 393, 493 Individual Instruction (1-2)

Prerequisite; jury recommendation.
Individual study with approved instructor.
Emphasis on technique and repertoire. Music majors must register for a minimum of one unit per semester. Performance majors approved by jury recommendation should register for two units per semester. Jury examination required. May be repeated for credit

#### 196 Student-to-Student Tutorials (1-3)

Prerequisites: a 3.0 or higher grade-point average and/or consent of instructor and simultaneous enrollment in the course or previous enrollment in a similar course or its equivalent. Consult "University Curricula" in this catalog for a more complete course description.

## 211 Chromatic Harmony (2)

Prerequisite: Music 112. Continuation of Music 111, 112. The chromatic practice of the 19th century. Secondary dominants; ninth, eleventh and thirteenth chords; sequence; Neapolitan and augmented sixth chords. Co-enrollment in Music 211L is required for music majors and is recommended for others.

## 211L Chromatic Harmony Laboratory (1)

Application of materials in Music 211. Activity to include sightsinging, dictation, and keyboard exercises. (2 hours activity)

# 265 Jazz Improvisation I (1)

Prerequisites: Music 111, 112, ability on a standard jazz instrument, or consent of instructor. Application of scales and their relationship to chords. Includes modes, jazz rhythmic phrasing, blues progressions, and cycle of dominant seventh chords. Basic jazz keyboard drills and ear training are involved.

# 281B,P,S,W Orchestral Instruments (1,1,1,1)

Techniques and materials for teaching orchestral instruments. Required for music education emphasis. Instructional fee. (3 hours activity)

281B Brass Instruments (1)
281P Percussion Instruments (1)
281S String Instruments (1)
281W Woodwind Instruments (1)

# 282A,B Piano Class for Music Majors (2,2)

Keyboard skills for students whose major performance field is not piano.

- A. Prerequisites: Music major only, Music 182 or placement by instructor.
- B. Prerequisites: Music major only. Music 282A or placement by instructor.

Meets minimum piano proficiency requirements for degree. (3 hours activity)

#### 283 Voice Class for Instrumentalists (1)

Prerequisite: teaching credential candidate or consent of instructor. Vocal skills for students whose major performance field is not voice. Prepares music education students to work with young singers in group settings by understanding their own vocal problems and the solutions in a variety of vocal styles. Satisfies voice proficiency requirement for music credential candidates.

# 284 Instrument Class for Singers, Pianists, and Guitarists (1)

Instrumental skills for music majors and minors other than Instrumental Music Education. Prepares Vocal-Choral and General- Music music-education students to work with beginning instruments in group settings. Includes study of ranges, transpositions, and techniques of various orchestral instruments.

# 293 Individual Instruction (1-2) See Music 193.

## 301 Techniques of Song Writing (3)

Prerequisites: Music 101 or consent of instructor. Melody writing and setting of text to music. Includes consideration of melodic construction, harmonic progression, and metrical values of text. For non-music majors.

#### 302 History of Jazz (3)

Prerequisite: Music 100 or 101 or consent of instructor. Historical study of jazz music in America; chronological development and stylistic evolution with consideration of peripheral trends. Emphasis on listening. Intended primarily for non-music majors; may be used as a music-major elective.

#### 303 World Music (3)

Prerequisite: Music 100 or 151 or consent of instructor. Survey of music from Europe, Asia, Africa, Australia, Oceania, the Caribbean, and indigenous Indian music from North and South America. Emphasis on musical styles and forms, and religious and ritualistic functions of music in various cultural frameworks. Intended primarily for non-music majors; may be used as a music-major elective.

# 304 Music of Mexico (3)

Survey of the art, folk, and traditional music of Mexico from pre-Cortesian aboriginal music to 20th-century style, including neo-Hispanic, folk (corrido, etc.), mestizo, mariachi, nationalistic, jazz, and modern art music. Interrelationship between traditional (folk) and serious (art) music; effects of Mexico's history on its music. May be used as a music-major elective. (Same as Chicano Studies 304).

# 305 Women in Music (3)

Prerequisite: Music 100 or consent of instructor. A study of the contributions women have made as composers and performers as well as the historical limitations to which women musicians have been subject. Recitals by guest lecturers and presentation of a culminating study on selected topics by students. May be used as a music-major elective.

# 306 Business of Music (3)

Prerequisites: Music 100 or consent of instructor. This course is designed as a comprehensive survey of the business aspects of song writing, publishing, copyright, legal affairs, the record industry, music in broadcast and film, and career planning and development.

# 316 16th-Century Counterpoint (2)

Prerequisite: Music 211 or consent of instructor. Sixteenth-century counterpoint in two, three and four parts, covering motet, canon, double counterpoint.

#### 319 Form and Analysis (3)

Prerequisite: Music 211 or consent of instructor. Analysis of structural elements of music such as motive, phrase, and period: binary, ternary, rondo, sonata allegro, and larger musical forms in representative musical works.

# 320 20th-Century Techniques to 1945 (2)

Prerequisite: Music 211. Compositional practices from 1890 to 1945; emphasis on written examples in the various styles. Includes sightsinging, keyboard practice, and dictation. (1 hour lecture, 2 hours activity)

#### 323 Orchestration (2)

Prerequisite: Music 319, 320 or consent of instructor. Writing and analysis of orchestral music.

#### 324 Scoring for the Band (2)

Prerequisite: Music 323 or consent of instructor. Devices, techniques, and skills required to produce complete transcriptions for the contemporary public school wind band.

## 326 Introduction to MIDI (2)

Prerequisite: Music 211. Introduction to the theory and use of MIDI instruments, including synthesizers, sequencers, computer software, drum machines, and effects units. Demonstrations and assignments dealing with techniques of creating music for live performance recording and film scoring.

# 327 Application of MIDI (1)

Prerequisite: Music 326. Continuing supervised laboratory experimentation with equipment, concepts, and techniques encountered in Music 326. Students pursue individual assignments based on experience, ability, and interest. Topics are unique to each student. They may range from the production of original compositions to reorchestrating a symphonic movement with MIDI instruments. May be repeated for credit.

# 333 Music and Child Development (3)

Prerequisite: Music 101 or equivalent; junior or senior standing. The relationship of music to child growth and development for the child from 5 to 12. Survey of age-appropriate music materials.

# 350 Music in Our Society (3)

Prerequisite: Music 100 or consent of instructor. Music in its relationship to general culture. A sociological approach: musical criticism and journalism, concert life, audience psychology, and the political/religious/business aspects of the American musical scene. No credit toward the music major.

#### 351A History and Literature of Music (3)

Prerequisite: Music 211 and 151 or consent of instructor. A study of the history and literature of music from early Greek beginnings through the Renaissance era.

#### 351B History and Literature of Music (3)

Prerequisite: Music 351A. A study of the history and literature of music of the Baroque and Classic eras. A grade of "C" or higher fulfills the course requirement of the university upper-division baccalaureate writing requirement for music majors.

# 351C History and Literature of Music (3)

Prerequisite: Music 351B. A study of the history and literature of music from the Romantic era to the present.

# 352 Symphonic Music in Western and Eastern Cultures (3)

Prerequisite: Music 100 or 101 or consent of instructor. Survey of symphonic music in Western and Eastern cultures from Baroque through Modern periods. Intended primarily for non-music majors; may be used as a music-major elective.

# 353 Public-School Instrumental-Music Materials (2)

Prerequisite: Music 382A or concurrent enrollment. The study of instrumental-music materials, repertoire, programming, and curriculum for public-school instrumental-music ensembles. Topics include solo, chamber, and large-ensemble repertoire.

# 354 Survey of Public School Choral Music Materials (2)

Prerequisite: Music 383A. Examination and analysis of choral repertoire suitable for junior and senior high choruses.

### 355 Film Music (3)

Prerequisites: Music 100 and an ability to read music or Music 101. A historical survey of motion picture musical scores. Analysis, listening, and examination of motion picture scores. Intended primarily for non-music majors; may be used as a music-major elective.

# 361A-W Major Performance Ensemble (1)

Study and performance of standard and contemporary music literature. Public concerts on campus and in the community each semester. A concert tour may be included by some groups. Required of music majors every semester of residence. (More than 3 hours major production) May be repeated for credit.

# 361A Symphony Orchestra (1)

Prerequisite: audition or consent of instructor.

# 361C Symphonic Band (1)

Prerequisite: consent of instructor.

# 361D Opera Theatre (1)

Roles and representative excerpts from standard and contemporary operas and the musical, dramatic, and language techniques of the musical theatre. Performance of operatic excerpts and complete operas. Also open to non-vocal majors.

# 361E University Singers (1)

Prerequisite: audition.

# 361F University Wind Ensemble (1)

Prerequisite: advanced wind and percussion students accepted by audition.

#### 361H Musical Theatre Orchestra (1)

Prerequisite: permission of instructor.

Performance in the orchestra for a collaborative Music Department/Theatre Department productions. Includes musical preparation, joint rehearsal preparation with the Theatre Department, and performances. Does not satisfy the Music Department major performance ensemble requirement. May be repeated for credit.

# 361L Jazz Ensemble I (1) (Formerly 362L)

Open by audition and consent of instructor. Numerous public performances on campus and in the community. Open to nonmusic majors. May be repeated for credit.

## 361M Men's Chorus (1)

Prerequisite: audition. This course enables students to learn and perform a wide variety of high-quality choral literature written especially for men's voices. Students also gain improved competence in sightsinging, musicianship, and vocal skills. Open to both music majors and non-music majors. Course may be repeated for credit.

# 361R Pacific Symphony Institute Orchestra (1)

Prerequisite: audition. A symphony orchestra consisting of both CSUF students and other outstanding young players. Full rehearsals will be augmented by sectionals and master classes conducted by coaches from the Pacific Symphony Orchestra. Course may be repeated for credit.

#### 361W Women's Choir (1)

Prerequisite: consent of instructor.

Students will learn and perform a wide variety of high-quality choral literature written especially for women's voices, while improving competence in sightsinging, musicianship, and vocal skills. May be repeated for credit.

## 362B Varsity Band (1)

Prerequisite: consent of instructor. The Varsity Band provides music for basketball games and other related activities. May be repeated for credit.

### 362D Percussion Ensemble (1)

Prerequisite: consent of instructor. Study and performance of music written for the percussion ensemble. May be repeated for credit. (2 hours activity)

#### 362E Brass Ensemble (1)

Prerequisite: consent of instructor. Study and performance of music written for large brass choir/ensemble. May be repeated for credit. Instructional fee. (2 hours activity)

#### 362M Horn Ensemble (1)

Prerequisite: consent of instructor. Study and performance of music written for French horn ensemble with emphasis on the solution of various problems relating to multiple horn literature.

# 362S Jazz Ensemble II (1)

Prerequisite: Open by audition and consent of instructor. (For those who do not qualify by audition for 362L.) Jazz and jazzrock ensemble; public performance each semester. Open to non-music majors by audition. May be repeated for credit.

## 362Y Diverse Instrument Ensemble (1)

Prerequisite: audition. An ensemble of diverse instruments and voices. Performs a wide range of repertoire for indeterminate instrumentation, as well as arrangements and transcriptions of music from the Middle Ages to the present. Open to all performance areas, including electric as well as acoustical instruments. Course may be repeated for credit.

## 363B-X Chamber Music Ensembles (1)

Open to all qualified wind, string, or keyboard students. Ensembles will study, read and perform representative chamber literature of all periods. May be repeated for credit. (2 hours activity)

363B Brass

363G Guitar

363J Jazz Combo

363K Keyboard

363S Strings

363W Woodwind

363X Saxophone

#### 363V Chamber Choir Ensemble (1)

Prerequisites: Music 361B, E, or W, and consent of instructor. Singers and student directors will study, read, and perform representative choral chamber literature of all periods. May be repeated for credit. (2 hours activity)

# 365G Guitar Performance Workshop (1)

Prerequisite: consent of instructor. Weekly workshop performances by students, faculty, and guests. Recommended for guitar majors each semester. May be repeated for credit.

# 365I Instrumental Workshop (1)

Prerequisite: consent of instructor. Weekly workshop performances by students, faculty, and guests. Recommended for instrumental majors each semester. May be repeated for credit.

# 365K Keyboard Workshop (1)

Weekly workshop performances by students, faculty, and guests. Recommended for keyboard majors each semester. May be repeated for credit.

## 365S String Workshop (1)

Prerequisite: consent of instructor. Weekly workshop performances by students, faculty, and guests. Recommended for string majors each semester. May be repeated for credit.

# 365V Vocal Workshop (1)

Application of vocal technique to performance practices through lecture-demonstration, master classes, and ancillary recitals. Recommended for vocal majors each semester. May be repeated for credit.

# 372 Harpsichord Class for Music Majors (1)

Prerequisite: 300 jury level in piano or organ, or consent of instructor. The harpsichord as an instrument, the application of Baroque stylistic characteristics, and training in the rudiments of continuo playing in ensemble with voices and instruments. (2 hours activity)

# 373 Organ Class for Music Majors (1)

Prerequisite: 300 jury level in piano or consent of instructor. The organ as an instrument, the playing techniques, and repertoire. The differences between piano and organ techniques. (2 hours activity)

# 380A,B,C Diction for Singers (1,1,1)

Prerequisite: sophomore standing or consent of instructor. Proper singing diction. Examples from standard vocal literature explained through the use of the International Phonetic Alphabet. Not a substitute for formal foreign-language study. A - English and Italian , B - German, C - French.

# 382A,B Instrumental Conducting (2,2)

Prerequisite: two courses from Music 284; 281B,P,S,W; or consent of instructor.

- A. Principles, techniques, and methods of conducting orchestral and band groups. (4 hours activity)
- B. Continuation of 382A, including laboratory experience in conducting instrumental groups, using standard instrumental literature. (4 hours activity)

#### 383A,B Choral Conducting (2,2)

Prerequisite: one semester of voice class or consent of instructor.

 A. Principles, techniques, and methods of conducting choral groups (4 hours activity). B. Continuation of 383A including laboratory work with class and vocal ensembles, using standard choral repertoire. (4 hours activity)

# 385G Guitar Fingerboard Skills (2)

Prerequisite: upper-division guitar standing or consent of the instructor.

Development of comprehensive understanding of the guitar fingerboard, with emphasis on scales, intervals, chord formation, harmonic progressions, and sight-reading.

# 385K Functional Skills for Keyboard Majors (2)

Development of the ability to sight-read, harmonize, transpose, and improvise. (4 hours activity)

# 386 Piano-Vocal Collaboration (1)

Prerequisite: 300 level in performance or consent of instructor. Coaching and collaborative, skills for pianists and vocalists. (Classroom performances, rehearsals outside of class, and listening and recital attendance required). May be repeated for credit. (2 hours activity)

# 393 Individual Instruction (1-2)

See Music 193.

# 395 Internship Professional Experience (1-3)

Fieldwork in music under supervision of resident faculty and professionals in the field. Requires minimum six hours fieldwork per week for each unit credit. May be repeated for credit to a maximum of six units. Open to all music students by consent of instructor.

#### 398 Recital (1)

Prerequisites: 300 jury level in the principal performance area and consent of instructor. Co-requisite: Enrollment in Music 365 I, S, G, K or V. Preparation and presentation of representative works in the principal performance area. In the semester of recital presentation, Music 398 will substitute for one unit of 393.

# 411 Survey of Music Theory (3)

Prerequisites: Completion of all lowerdivision theory requirements, and at least senior standing or equivalent. An examination of the theoretical basis of music from 1500 to the present through analysis, readings, and discussion. Intended primarily for graduate and postbaccalaureate students. Fulfills graduate entrance examination requirement in music theory. May not be applied to a graduate study plan.

## 418 18th-Century Counterpoint (2)

Prerequisite: Music 211 or consent of instructor. Eighteenth-century counterpoint in two, three, and four parts, covering invention, canon, double and triple counterpoint, and fugue.

# 419 Advanced Form and Analysis (2)

Continuation of Music 319; larger musical works.

# 420 20th-Century Techniques since 1945 (2)

Prerequisites: Music 320, 351C, or consent of instructor.

#### 422 Composition (2)

Prerequisites: Music 316, 319, and 320 or consent of instructor. Composition of smaller forms in various contemporary styles.

# 433 Music in Early Childhood (3)

Prerequisite: junior, senior, post-baccalaureate, or graduate standing. Songs, creative activities, and materials for teaching music in early childhood education. Teaching-learning strategies.

# 444 Survey of Marching Bands (2)

Prerequisite: consent of instructor.

Techniques, materials, administration for marching band. Charting for field shows and parade activities.

# 450 History of Musical Style (3)

Prerequisites: Music 351A,B,C, or equivalent, or consent of instructor. Intensive review of the principal musical styles in Western music. Intended primarily for graduate and post-baccalaureate students. Fulfills graduate entrance examination requirement in music history. May not be applied to a graduate study plan.

# 453A,B Choral Literature and Interpretation (2,2)

A - Prerequisites: Music 383A or equivalent and 351A,B. Choral literature from Medieval, Renaissance, and Baroque eras analyzed in historical perspective. Appropriate performance practices. B - Prerequisites: Music 383A or equivalent and 351C. Continuation of A with examples from the Classic, Romantic, and Contemporary eras.

# 454A,B Piano Literature and Interpretation (2,2)

Prerequisites: Music 351A,B and upperdivision piano standing or consent of instructor. Performance of representative styles and schools of piano literature; solo and ensemble repertoire.

- Contrapuntal forms, sonatas, and variations.
- B. Character pieces, fantasies, suites, and

# 456 Opera Literature and Interpretation (3)

Prerequisite: Music 351A,B,C or consent of instructor. All periods and nationalities, including stylistic and historical considerations.

# 457A Song Literature and Interpretation (2)

Prerequisite: Music 319, 380B, or consent of instructor. Study and performance of German Lieder with representative examples of periods and styles.

# 457B Song Literature and Interpretation (2)

Prerequisite: Music 380C or consent of instructor. Study and performance of French art songs with representative examples of periods and styles.

## 459A Guitar History and Literature (2)

Prerequisite: Music 151, 211 or equivalent. Upper-division guitar standing or consent of the instructor. Historical survey of the literature for classical guitar. Important works for flute, vihuela, and Baroque guitar, plus the compositions and transcriptions formodern guitar.

# 459B Guitar Pedagogy (2)

Prerequisite: Music 151, 211, or equivalent. Upper-division guitar standing or consent of the instructor. Fundamentals of teaching and coaching classical guitar. Materials and methods for individual and group instruction.

# Appreciation (3)

(Same as Afro-Ethnic Studies 460)

# 461 Survey of Choral Literature and Interpretation (2)

Prerequisites: Music 383A; 351A,B,C or consent of instructor. Choral literature from the Renaissance to the present day, analyzed in historical perspective, with emphasis on stylistic performance. Intended primarily for undergraduate music-education students.

# 463 Seminar in Black Music (3)

(Same as Afro-Ethnic Studies 463)

# 466 Pedagogy Observation and Internship (1)

Prerequisite: junior-level piano standing or consent of instructor. Coenrollment in 467A,B or C required. Observation of and supervised internship in piano teaching.

Teaching techniques, and development of lesson plans and materials will be included.

## 467A,B,C Piano Pedagogy (2,2,2)

Prerequisite: upper-division piano standing or consent of instructor.

- A. Materials and methods for beginning and elementary students. Co-enrollment in Music 466 recommended.
- B. Materials and methods for intermediate and early advanced students. Co-enrollment in Music 466 recommended.
- C. Materials and methods for class piano.
  Co-enrollment in Music 466 recommended.

# 468 Vocal Pedagogy (2)

Physiology, anatomy, and acoustics as they apply to singing; fundamentals of vocal pedagogy for studio and public school teaching; application of these fundamentals through seminar discussion and actual studio teaching; diagnosis and cure of specific vocal problems.

# 477 Piano Pedagogy Practicum (3)

Prerequisites: Music 467A, B, and C. Supervised piano teaching in individual and group learning environments. The following elements will be emphasized: keyboard technique, literature, communication skills, lesson plans, and piano curriculum.

# 493 Individual Instruction (1-2) See Music 193.

#### 496 Student-to-Student Tutorials (1-3)

Prerequisites: grade-point average of 3,0 and consent of instructor. Previous or concurrent enrollment in the course being tutored or an equivalent course. Consult "Student-to-Student Tutorials" in this catalog for more complete course description.

# 497 Senior Project (1)

Independent investigation of an area of special interest in music culminating in a research paper, public performance, lecture, or lecture-recital.

#### 498 Recital (1)

Prerequisites: 400 jury level in the principal performance area (400 jury level in composition for composition majors) and consent of instructor. Co-requisite: Co-enrollment in Music 365 K, I, S, G, or V. Preparation and presentation of representative works in the principal performance area. In the semester of recital presentation, Music 498 will substitute for one unit of Music 493.

# 499 Independent Study (1-3)

A special topic in music selected in consultation with and supervised by the instructor. May be repeated for credit.

# 500 Introduction to Graduate Study in Music (3)

Required of all music graduate students within the first nine study-plan units. Basic bibliography, literature, and research techniques, as well as other materials useful in graduate study.

## 524 Seminar in Music Theory (3)

Theoretical subjects (form/style analysis, history of music theory, etc.) to be chosen by instructor. May be repeated for credit.

# 552 Seminar in Music of the Renaissance (3)

Prerequisite: Music 351A,B,C; Music 500; or equivalent. The forms, styles, and characteristics of music between 1400 and 1600. Analysis of works by representative composers and theoretical writers.

# 553 Seminar in Music of the Baroque Period (3)

Prerequisite: Music 351A,B,C; Music 500; or equivalent. Musical forms, styles, and performance practices of the Baroque period. Analysis of representative works.

# 554 Seminar in Music of the Classic Period (3)

Prerequisite: Music 351A,B,C; Music 500; or equivalent. The history and literature of music from approximately 1730 to 1826. Analysis of representative works.

# 555 Seminar in Music of the Romantic Period (3)

Prerequisite: Music 351A,B,C; Music 500; or equivalent. The structure and development of music in the 19th century. Analysis of representative works.

# 567 Seminar in Piano Pedagogy (3)

Graduate-level study of advanced learning theories, musical issues, and pedagogical methods involved in teaching piano through lectures, discussions, and student presentations. Practice teaching required.

#### 570G Seminar in Guitar Literature (3)

Prerequisite: Music 500 or consent of the instructor. Advanced study of guitar literature, with performances and analysis by class members and lectures by the instructor. Requirements can be met by performance and/or analysis. Topics include guitar sonatas, guitar concertos, and solo guitar works of Heitor Villa-Lobos. May be repeated for credit.

## 570P Seminar in Piano Literature (2)

Prerequisite: Music 500 or consent of instructor. Advanced study of piano literature, with performances and analyses by class members and lectures by the instructor. Requirements can be met by performance and/or analysis. May be repeated for credit.

# 582 Seminar in Advanced Instrumental Conducting and Interpretation (2)

Prerequisites: Music 382B, keyboard facility for score reading, and consent of instructor. Conducting techniques. Interpretive problems of each period covered in lectures. May be repeated for credit.

# 583 Seminar in Advanced Choral Conducting and Interpretation (2)

Prerequisites: Music 383B, conducting experience, or consent of instructor. Choral conducting techniques. Lab work with student groups and concert conducting. May be repeated for credit.

### 593 Individual Instruction (1-2)

Prerequisite: jury recommendation. Individual instruction with approved instructor. Emphasis on performance techniques and repertoire. May be repeated for credit.

# 597 Project (1-3)

The culminating experience of M.M. students, with unit credit depending on the option chosen. Option 1: One public recital with program notes and a related paper (3 units). option 2: Two public recitals with program notes for each (2 units for the first recital, 1 for the second, total of 3 units)

## 598 Thesis (3)

Individual investigations of specific problems in the area of concentration by candidates for the M.A. degree. Students must submit an enrollment request form by week one of the preceding semester.

# 599 Independent Graduate Research (1-3)

Prerequisites: Graduate standing in music and consent of instructor. Research and study projects in areas of specialization beyond regularly offered coursework. Oral and/or written reports required. Students must submit an enrollment request form by week one of the preceding semester.

#### **MUSIC EDUCATION COURSES**

# 295 Clinical Practice in Instrumental/Choral Techniques (1)

Applications of instrumental/choral techniques classes through clinical practice and fieldwork in public and private schools. Coenrollment in Music 383B or 382B recommended. (3 hours weekly to be arranged in nearby school)

# 394A Practicum in School Materials and Techniques (2)

Prerequisite: Music Education 295. For music education majors. Experience in sequential pedagogy, classroom delivery skills, and concurrent development of management skills, aural discrimination skills, and aural and visual diagnostic skills.

# 394B Practicum in Skills for Teaching Music (2)

Prerequisite: Music Education 394A. Corequisite: Music Education 395A or 395B. For music education majors. Observation and application of musical concepts and materials, sequential pedagogy, nonverbal teaching strategies, and classroom delivery and management skills. Continued development of aural and visual diagnostic skills and aural discrimination skills.

# 395A Clinical Practice in Instrumental Conducting (1)

Prerequisite: Music Education 295.
Clinical practice and field applications of concepts, materials, and procedures as applied to field situations, as in public and private schools. Co-enrollment in Music Education 394B.

# 395B Clinical Practice in Choral Conducting (1)

Prerequisite: Music Education 295.
Clinical practice and field applications of concepts, materials, and procedures as applied to field situations, as in public and private schools. Co-enrollment in Music Education 394B.

# 404 Microcomputers and MIDI for School Music Classrooms (3)

Prerequisite: Music Education 295 or equivalent. Pre-service and in-service music teachers will learn how to use microcomputers and musical instrument digital interface (MIDI) for classroom management and pedagogical purposes. Students will gain experience with software for word processing, database, spreadsheet, music notation, music pedagogy, and MIDI.

# 442 Principles and Methods of Teaching Music in the Public Schools (3)

Prerequisite: admission to teacher education. History, principles of public education, grades K-12, with emphasis on music. Philosophy, methods, materials, and procedures for organizing and teaching music in elementary and secondary schools. Must be taken concurrently with Secondary Education 440F and 440S.

# 449E Externship in Secondary Teaching (3)

Must be taken concurrently with Music Education 442. For candidates who have declared for the single subject credential in music. See description and prerequisite under Department of Secondary Education.

# 449I Internship in Secondary Teaching (10)

For candidates who have declared for the single subject credential in music. See description and prerequisite under Department of Secondary Education.

# 4495 Seminar in Secondary Teaching (2)

Must be taken concurrently with Music Education 449I. For candidates who have declared for the single subject credential in music. See description and prerequisites under Department of Secondary Education.

# nursing

# DIVISION OF CHILD, FAMILY AND

## **DIVISION CHAIR:**

**COMMUNITY SERVICES** 

Judith Ramirez

#### **DEPARTMENT HEAD:**

Christine Latham

#### **DEPARTMENT OFFICE:**

Education Classroom 105

#### **PROGRAM OFFERED**

Bachelor of Science in Nursing

## **FACULTY**

Arlene Blix, Julia George, Barbara Haddard, Christine Latham

#### INTRODUCTION

The major in nursing is designed to provide registered nurses with knowledge, skills, and attitudes necessary for the performance of the professional nursing role and characteristic of the generally educated person. The program prepares a nursing generalist who can provide care within a framework of scientific and professional accountability, and can function independently in a variety of health settings. The program provides students with the necessary foundation for



graduate
education
and specialization and
promotes
and fosters
commitment
to lifelong
learning for
personal
and professional
growth.

#### **BACHELOR OF SCIENCE IN NURSING**

The curriculum offers to the registered nurse with an associate degree in nursing (or its equivalent) an upper-division program leading to a bachelor of science degree with a major in nursing. Graduates are eligible for certification as public health nurses in the State of California.

The program is accredited by the National League for Nursing Accreditation Commission (NLNAC), 61 Broadway - Floor 33, New York, New York 10006. (212) 363-5555.

# **Admission Requirements**

- 1. Meet requirements for admission to the university as a transfer student.
- 2. Completion of an associate degree in nursing or its equivalent.
- 3. Current licensure as a registered nurse in California.
- 4. Completion of one college level course in each of the following: anatomy (with laboratory), physiology (with laboratory), chemistry (with laboratory), microbiology (with laboratory), psychology, and sociology or anthropology. A minimum grade of C must be attained in each course.
- Completion of one year of satisfactory work experience as a registered nurse is recommended.

#### **Admission Procedures**

Students are accepted into the nursing program twice each year in the fall and spring semesters.

- Submit a university application and an official transcript of all previous college work to the Office of Admissions and Records.
- Submit a nursing application form to the Nursing Program Office (EC 105) with a transcript copy of all previous college work and two letters of reference from previous employers or instructors.

# Program Regulations

- All required nursing and support courses must be taken in sequence. Check each nursing course for prerequisites and corequisites. Students may enroll in only one clinical course (Nursing 305L, 355L, 402L, or 452L) per semester.
- Students must apply for the clinical nursing courses each semester prior to enrollment in the class. (November 1 deadline for spring semester and April 1 for fall semester.) Enrollment in the seminar and clinical sections is limited.
- Students must maintain a cumulative 2.0
  grade-point average in all units attempted
  and attain a minimum grade of C in all
  nursing and support courses.
- 4. The student who earns less than a grade of C in nursing or support courses must repeat that course prior to being admitted into the next nursing course in sequence. A nursing or support course may be repeated only one time and requires departmental consent. No more than three nursing courses may be repeated; of these only one may be a clinical course.
- 5. Students must have current R.N. licensure, malpractice insurance, current CPR certificate, proof of MMR or of immunity status for MMR, proof of Hepatitis B vaccine or waiver thereof, verification of annual TB testing with appropriate followup, and access to transportation in order to be admitted into clinical courses. For senior clinical courses, proof of current driver's license and automobile insurance are required.
- Students are required to make an appointment with advisers at least once each semester.
- 7. Professional standards are to be maintained. A student who demonstrates unprofessional behavior or behavior which indicates unsafe practice may be denied progression or may be dismissed from the program. Refer to Nursing Student Handbook for complete progression and retention policy.
- Any student with a lapse of five years between clinical nursing courses must take a placement test and remediation, if necessary, before admission to the subsequent clinical nursing courses.

## Scholarships, Awards, Financial Aid

Financial aid and community scholarships are available.

Outstanding senior student, W. J. Traber
Humanism Award, and Vera Robinson
Humor Award are given to graduating
seniors.

# Requirements for the Degree

The total number of units required for the Bachelor of Science in Nursing is 124. This consists of a specific combination of prerequisites, general education, nursing, and elective courses.

The following courses are required for the nursing major: Nursing 300, 305, 305L, 307, 320, 353, 355, 355L, 357, 400, 400L, 402, 402L, 450, 450L, 452, and 452L (43 units); and an upper-division statistics course (3 units). Total: 46 units.

All students must complete the university upper-division baccalaureate writing requirement, which includes the Examination in Writing Proficiency. Nursing 305 is approved as the upper-division writing course.

## Baccalaureate Plan of Study

Students may attend full-time or parttime.

Junior Year: First Semester

Nursing 300 Nursing Theories: Bases for Professional Practice (3)

Nursing 305/L Professional Nursing I (Laboratory/Clinical) (3, 2)

Nursing 307 Health Promotion: Parent-Child Nursing (3)

General Education/Electives (3)

Junior Year: Second Semester

Nursing 320 Process of Teaching in Nursing (2)

Nursing 353 Alterations in Health Status:
Applications in Nursing (4)

Nursing 355/L Professional Nursing II (Laboratory/Clinical) (3, 2)

Nursing 357 Health Promotion: Adult-Aged Nursing (3)

General Education/Electives (3)

Senior Year: First Semester

Nursing 400/L Professional Dimensions of Nursing (3)

Nursing 402/L Community Health Nursing (Clinical) (3, 3)

Statistics (upper division) (3)
General Education/Electives (3)

Senior Year: Second Semester

Nursing 450/L Nursing Research (3)

Nursing 452/L Leadership/Management in Professional Nursing (Clinical)\* (3, 3)

General Education/Electives (6)

\*Clinical courses require current R.N. licensure, malpractice insurance, current CPR certificate, proof of MMR or of immunity status for MMR, proof of Hepatitis B vaccine or waiver thereof, verification of TB testing with appropriate follow-up, access to transportation, current driver's license, and current automobile insurance.

#### **NURSING COURSES**

Note: All nursing courses for majors require (1) admission to the university as a nursing major, (2) current California R.N. licensure, (3) junior or senior standing and (4) consent of instructor.

# 300 Nursing Theories: Bases for Professional Practice (3)

Prerequisites: junior standing, consent of instructor. Discussion and comparison of concepts and theories from nursing, humanities, and science with emphasis on their significance to the practice of professional nursing. Includes philosophy and conceptual framework of the nursing program and use of theory in the nursing process.

# 301 Promotion of Optimal Health (3)

Prerequisites: one course from category
III.A.2 of general education and upper-division standing. Advanced health concepts and practices. Common health problems, causative factors, and methods for prevention.

Preventive and promotive health concepts and practices explored, integrating physiological, psychosocial, spiritual, cultural, and environmental factors which inhibit or facilitate optimal health. For non-nursing majors.

(Same as Health Science 301)

## 303 Women's Health and Healing (3)

Prerequisite: upper-division standing or consent of instructor. Analysis of issues affecting women's health across the lifespan, utilizing literature from many disciplines to provide an integrated approach. Improvement of health care consumerism, feminist understanding, and scholarly inquiry concerning women's health concerns are goals. Open to non-nursing majors.

## 305 Professional Nursing I (3)

Prerequiste or corequisite: Nursing 300. Corequisite: Nursing 305L. Focuses on professional nursing role, communication theory and principles, and the nursing process. Includes psycho-social concepts relative to health of the individual. Influence of culture, role, social support, and values evaluated. Meets undergraduate writing requirement.

# 305L Professional Nursing I: Laboratory/Clinical (2)

Prerequisite or corequisite: Nursing 300. Corequisite: Nursing 305. Focuses on interaction and socialization into the professional role. Students utilize nursing process with clients exhibiting psycho-social-spiritual-cultural risks to health. Competence in critical thinking, evaluation, and writing is facilitated.

# 306 Health and Safety for Early Childhood (3)

Prerequisite: R.N. License, or Child
Development 320, or Child/Adolescent
Studies 325, or equivalent. Focus on preventative measures for child care professionals to promote safe, healthy environments at home, play, or in group care. Assists individuals who supervise and care for young children to recognize, differentiate, and respond to common safety hazards, illness, and injuries.

# 307 Health Promotion: Parent-Child Nursing (3)

Prerequisite or corequisite: Nursing 300. Theories and issues important in parent-child nursing. Specific nursing interventions useful in promoting health relative to developmental change. Topics explored: genetic counseling, parent-child bonding, sexuality, adaptation patterns from conception through adolescence, cultural determinants.

# 320 The Process of Teaching in Nursing (2)

Prerequisites: Nursing 300, 305 and 305L. Nursing knowledge and skills in clinical teaching situations with individuals, families, and groups. Content includes theories and principles of learning, teaching strategies and methodologies, teaching resources, and evaluation of instruction.

# 353 Alterations in Health Status: Applications in Nursing (4)

Prerequisite: Junior standing or consent of instructor. Nursing 300 is to be taken prior to or concurrent with 353. Discusses alterations in health status and their applications to nursing practice. Addresses alterations at the cell and system levels, and potential resulting functional changes. Epidemiological approaches and clinical case studies will be presented to support nursing assessments and interventions.

# 355 Professional Nursing II (3)

Prerequisites: Nursing 305, 305L.

Corequisites: Nursing 355L. Nursing 320 and 353 are to be taken prior to or concurrent with Nursing 355. Adult health assessment including common variations found in the child and older adult. Analysis of health data and identification of health risks of specific groups emphasized. Research findings used to support nursing interventions to reduce risk and promote health.

# 355L Professional Nursing II: Laboratory/Clinical (2)

Prerequisites: Nursing 305, 305L.

Corequisites: Nursing 355. Nursing 320 and 353 are to be taken prior to or concurrent with Nursing 355L. Students practice history taking, physical examination techniques and risk identification on peers in supervised oncampus setting. Students apply these skills and intervene to reduce risk and/or promote health with individual clients.

# 357 Health Promotion: Adult-Aged Nursing (3)

Prerequisite: Nursing 300. Developmental theories of adulthood and the aging process are discussed with emphasis on analysis of health behavior of adults. Normative transitions, basic crises of adult life, and the nurse's role in health promotion throughout the adult life cycle are included.

# 400 Professional Dimensions of Nursing (2)

Prerequisites: Nursing 300, 305, 305L. Corequisite: Nursing 400L. Analysis of social trends and issues affecting nursing and health care. Bioethics, health care legislation, and roles of professional organizations are examined. Nursing leadership tasks are explored in relation to group dynamics, values clarification, and ethical decision-making.

# 400L Professional Dimensions of Nursing: Laboratory (1)

Prerequisites: Nursing 300, 305, 305L. Corequisite: Nursing 400. Understanding of group dynamics theory by assuming leader and member roles. Actual and potential stressors are explored and communication patterns analyzed. Includes examination of pending legislation, health planning, professional organizations, and community health advocacy groups.

# 401 Epidemiology (3)

(Same as Health Science 401)

# 402 Community Health Nursing (3)

Prerequisites: junior level nursing courses. Corequisite: Nursing 402L. Theories of community health and nursing synthesized to help students facilitate the adaptation process of clients, families, and communities to attain and maintain optimal health. Emphasis on family health care, assessment of community health needs, advocacy, and collaborative role.

# 402L Community Health Nursing: Clinical (3)

Prerequisites: junior level nursing courses. Corequisite: Nursing 402. Application of community health nursing concepts to family health care in the community milieu. Students collaborate with families and others and use community resources to promote optimal family health and improve health status. (Clinical 9 hours)

# 450 Nursing Research (2)

Prerequisites: Nursing 300, upper division statistics course. Corequisite: Nursing 450L. Historical, philosophical, and ethical aspects of nursing research. Relationship between nursing research and professional accountability. Principles and methods of research process with emphasis on evaluating research for use in leadership and professional role.

## 450L Nursing Research: Laboratory (1)

Prerequisites: Nursing 300, upper division statistics course. Corequisite: Nursing 450. Evaluation of specific nursing studies to determine significance and applicability to nursing practice.

# 452 Leadership/Management in Professional Nursing (3)

Prerequisites: Nursing 400, 400L, 402, 402L. Corequisite: Nursing 452L. Nursing 450 and 450L must be taken prior to or concurrently. Theories of leadership/management; concepts of power, motivation, decision-making, change, and management skills related to the professional nursing role in the health care system.

# 452L Leadership/Management in Professional Nursing: Clinical (3)

Prerequisites: Nursing 400, 400L, 402, 402L. Corequisite: Nursing 452. Nursing 450 and 450L must be taken prior to or concurrently. Application of leadership/management theories and skills in student-selected and faculty approved clinical settings. (Clinical 9 hours)

# 499 Independent Study in Nursing (1-3)

Prerequisites: senior standing in nursing and/or consent of instructor. Individually supervised studies and/or projects.

**DEPARTMENT CHAIR:** James R. Hofmann

## **DEPARTMENT OFFICE:**

**Education Classroom 475** 

#### **PROGRAMS OFFERED**

Bachelor of Arts in Philosophy Minor in Philosophy

#### **FACULTY**

Albert Flores, James R. Hofmann, Craig K. Ihara, Merrill Ring, J. Michael Russell, Shari Starrett, Frank Verges

#### INTRODUCTION

Philosophy began when people first questioned the accounts poets and priests had handed down about the structure of the world and the meaning of human life. Since then philosophers have helped create and explore virtually every aspect of our cultural life, including science, religion, art and politics. To study philosophy, therefore, is to engage in a classic form of liberal education in which powers of reasoning and conceptual analysis are explicitly developed. The study



of philosophy includes: (1) the development of critical thinking and writing skills; (2) the investigation of conceptual problems encountered in the course of reflecting about experience; (3) the assessment of assumptions underlying other sciences

and arts; and (4) the exploration of intellectual and cultural history from a broad perspective. Philosophy is not a "high unit" major. It is possible for many students to obtain the benefits of a philosophically based liberal education while also majoring in another discipline. The Philosophy Department also encourages minors, which can be tailored to the student's individual interests or other fields of study. Majoring or minoring in philosophy is an excellent way of preparing for law school and other careers that involve facility in reasoning, analysis and information processing.

# Awards in Philosophy

The Paul C. Hayner Memorial Award, to the outstanding graduating senior in philosophy; the William H. Alamshah Memorial Prize, for the best undergraduate philosophy essay submitted.

# Advisers

For advisement about the major or the minor in philosophy, please contact the departmental undergraduate adviser.

### **BACHELOR OF ARTS IN PHILOSOPHY**

A minimum of 39 units in philosophy are required.

- 1. Philosophy 315 Philosophical Argument and Writing (3)
- 2. Required courses in the history of philosophy before 1900: (9 units) Philosophy 290 History of Philosophy: Greek Philosophy (3) Philosophy 300 History of Philosophy: Rationalism and Empiricism (3) Philosophy 301 History of Philosophy: Kant and the 19th Century (3)

- Additional history of philosophy requirement: (6 units).
  - Two of the following courses: Philosophy 291, 323, 380, 381, 425.
- 4. Other course requirements (3 units each from a and b)
  - a. Ethics: Philosophy 345 or 410
  - b. Metaphysics, Epistemology: Philosophy 420 or 430 or 440
- 5 Seminar requirement: Three units (one course) from Philosophy 447T, 455, 460, 470, 480 or 490.
- Electives: 12 units of philosophy courses, no more than six lower-division, which have not been used to fulfill other requirements.

## MINOR IN PHILOSOPHY

Students in other disciplines often find that a background in philosophy enriches their university experience and enhances work done in other fields in preparation for specific careers. The minor in philosophy requires 21 units in philosophy, at least 12 of which must be upper division. Up to nine units taken in fulfillment of general education requirements may be counted toward the minor. The Department of Philosophy offers two ways of pursuing the minor. The "alternative B" minor is especially appropriate for students preparing for professional degrees in law or medicine.

# Alternative A:

Among the 21 units, at least six units from among the following courses:
Philosophy 290, 291, 300, 301, 378; and either a senior seminar or three units of Philosophy 499.

## Alternative B:

Among the 21 units, at least 15 units to be chosen from among philosophy courses correlative to the student's major or intended postbaccalaureate field, as approved by the philosophy adviser.

# RECOMMENDED COURSE WORK FOR PHILOSOPHY MAJORS

A program in philosophy profits greatly from the study of psychology, the natural and social sciences, and literature. Students are advised to supplement their studies in philosophy with course work offered in these fields and in fields closely related to their philosophical interests.

Students who are planning to attend graduate school in philosophy are urged to acquire proficiency in a foreign language, and to include in their programs as many as possible of the following:

Philosophy 303 Introduction to the Philosophy of Science (3)

Philosophy 345 Social and Political Philosophy (3)

Philosophy 368 First Course in Symbolic Logic (3)

Philosophy 375 Introduction to the Philosophy of Language (3)

Philosophy 380 Analytic Philosophy (3)

Philosophy 410 Ethical Theory (3)

Philosophy 420 Metaphysics (3)

Philosophy 430 Epistemology (3)

Philosophy 440 Philosophy of Mind (3)

Philosophy 455 Seminar in Values (3)

Students interested in pursuing admission to law school are advised to include in their programs as many as possible of the following: Philosophy 310 Ethics (3)

Philosophy 312 Business and Professional Ethics (3)

Philosophy 313 Environmental Ethics (3)

Philosophy 314 Medical Ethics (3)

Philosophy 345 Social and Political Philosophy (3)

Philosophy 355 Philosophy of Law (3)

Philosophy 410 Ethical Theory (3)

Philosophy 455 Seminar in Values (3)

#### Transfer Credit

Work done in philosophy at other institutions may be counted toward the major, subject to the rules of the university and the following departmental rules: (1) only senior seminars can fulfill the seminar requirement; (2) only upper-division work can fulfill upper-division requirements; (3) in no case can more than six units of lower-division work taken at another institution count toward the major requirement of 39 units. Six units of philosophy taken at another university may be counted toward the minor.

#### **PHILOSOPHY COURSES**

## 100 Introduction to Philosophy (3)

The nature, methods and some of the main problems of philosophy. Primarily for freshmen and sophomores. Not a prerequisite for advanced courses. (CAN PHIL 2)

# 110 Religions of the World (3)

(Same as Comparative Religion 110)

# 200 Argument and Reasoning (3)

Development of non-mathematical critical reasoning skills, including recognition of arguments, argument evaluation and construction of arguments.

# 210 Logic (3)

The logical structure of language and correct reasoning: deduction, induction, scientific reasoning, informal fallacies.

Instructional fee. (CAN PHIL 6)

# 290 History of Philosophy: Greek Philosophy (3)

The origins of Western philosophy, and its development through Socrates, Plato and Aristotle.

# 291 History of Philosophy: Medieval Philosophy (3)

Hellenistic philosophy and such figures as Plotinus, Augustine, Thomas Aquinas, Duns Scotus, and William of Oakham.

# 300 History of Philosophy: Rationalism and Empiricism (3)

The rationalism of Descartes, Spinoza and Leibniz, and the empiricism of Locke, Berkeley and Hume.

# 301 History of Philosophy: Kant and the 19th Century (3)

Prerequisite: Philosophy 300 or consent of instructor. Brief review of rationalism and empiricism as a background to Kant. A study of the revolutionary aspects of Kant's critical philosophy. An exploration of subsequent trends in nineteenth century philosophy, emphasizing such figures as Hegel, Schopenhauer, Marx, Mill, Kierkegaard and Nietzsche.

# 302 Introduction to Intercultural Women's Studies (3)

(Same as Women's Studies 302)

# 303 Introduction to the Philosophy of Science (3)

Prerequisite: general education physical or biological science requirement. Logical and methodological features of scientific inquiry; nature of theories and interpretation of theoretical terms; scientific progress; impact of science on society and of society on science.

#### 310 Ethics (3)

Problems of human conduct and moral evaluation: standards for moral assessment of conduct and persons; morality and its relation to mores, social demands and personal commitments.

# 311 Aesthetics: Philosophy of Art and Beauty (3)

The conditions and aims of art and of aesthetic experience.

# 312 Business and Professional Ethics (3)

Prerequisite: upper-division standing. Explores the nature and limits of the moral rights and responsibilities of business and the professions (including law, medicine, science, engineering, journalism, management and teaching).

## 313 Environmental Ethics (3)

Prerequisite: Completion of GE III.B.2 or III1. Examines the conceptual and moral foundations of environmental ethics focusing on ecosystem and wildlife conservation policies, animal rights, a land ethic, competing policy analyses, and obligations to future generations.

# 314 Medical Ethics (3)

Prerequisite: upper-division standing. An examination of ethical issues raised by recent technical developments in medicine, and of the moral rights and responsibilities of patients and health-care professionals.

# 315 Philosophical Argument and Writing (3)

Prerequisite: three units of philosophy. Philosophical concepts, distinctions and methods are used to teach philosophical and argumentative writing which is clear, critical, expressive and precise. This course is designed to satisfy the classroom portion of the upper-division writing requirement for philosophy majors.

# 323 Existentialism (3)

Introduction to existentialist perspectives on freedom, meaning, responsibility, authenticity and self-deception. The course typically includes discussion of Kierkegaard, Nietzsche, Heidegger and Sartre.

### 324 Existential Group (3)

Prerequisite: consent of the instructor. An investigation of how themes in the writings of existentialist philosophers pertain to the lifestyles, actions, and feelings of the class participants.

# 341 Assumptions of Psychotherapy (3)

Prerequisite: completion of Implications and Explorations in Social Sciences section of the general education program or consent of instructor. Philosophical concepts and assumptions pertinent to the theory of psychotherapy, such as the Cartesian, the mechanistic and the deterministic assumptions of Freud.

# 343 Philosophy of Feminism (3)

Prerequisite: three units of philosophy or three units of women's studies. A critical examination of philosophical issues connected with "second-wave" U.S. feminism. Alternative feminist theories, goals and reconstructions of traditional areas of philosophy. (Same as Women's Studies 343)

#### 345 Social and Political Philosophy (3)

Prerequisite: 3 units of philosophy. A critical examination of individualism, community, freedom, authority, justice, human rights and alienation, from the perspective of social and political theory.

# 348 Philosophy of Religion (3)

The role of philosophy in shaping theological doctrine, in critically evaluating religious experience, in arguing for or against the existence of God, and in considering the problem of evil. (Same as Religious Studies 348)

## 350 Asian Philosophy (3)

Prerequisite: completion of Introduction to the Humanities section of the general education program. Asian philosophies such as Taoism, Confucianism and Buddhism (especially Zen): world views, conceptions of human nature and the good life. Applications to martial and non-martial arts. Comparisons with Western philosophies, religions and values.

## 352 Philosophy of Asian Martial Arts (3)

Prerequisite: Three units of philosophy or appropriate prior instruction in the martial arts. A philosophical examination of Asian martial arts and how they relate to Taoism, Buddhism, Confucianism, Shinto and Zen. Samurai ideals will be compared to those of the warrior traditions of the Middle Ages and Homeric Greece.

#### 353 Buddhism in India (3)

(Same as Comparative Religion 353)

#### 354T Buddhism Outside India (3)

(Same as Comparative Religion 354T)

## 355 Philosophy of Law (3)

An exploration of the philosophical issues underlying the law, including the nature and justification of law, its relationship to morality, and the limits of free speech, criminal punishment, legal responsibility and affirmative action.

# 368 First Course in Symbolic Logic (3)

Prerequisites: Entry Level Mathematics examination; upper-division standing. The recognition and construction of correct deductions in the sentential logic and the first-order predicate calculus. Instructional fee. (Same as Math 368)

# 375 Introduction to the Philosophy of Language (3)

Prerequisite: six units of philosophy or six units of linguistics or three units of each. A study of philosophical issues about language including topics such as meaning, reference, predication, and truth. (Same as Linguistics 375)

# 380 Analytic Philosophy: 1900 to 1950 (3)

Prerequisite: six units in philosophy or consent of instructor. Investigation of the rise and development of the analytic movement in 20th-century philosophy. Works of such philosophers as Moore, Russell, Wittgenstein and Carnap will be studied.

# 381 The Analytic Tradition: 1950 to the Present (3) (Formerly 370)

Prerequisite: six units of philosophy or equivalent. A study of the character and development of post-war Anglo-American philosophy including the works of such thinkers as the later Wittgenstein, Quine, Davidson, Rorty and Putnam.

#### 382 Marx and Marxism (3)

Prerequisite: upper-division standing. Marx and his followers in philosophical perspective. Theories of human nature, society and intellectual activity; conceptual tools for the analysis of social phenomena; sources; and followers, both critical and dogmatic.

## 383 Postmodernism (3)

Prerequisite: Philosophy 301 or 323, or equivalent. Such modern and post-modern movements as phenomenology, hermeneutics, critical theory, poststructuralism, deconstruction, the Frankfurt school, and French feminism; influences of these movements on political, literary, and psychoanalytic theory.

# 384 Philosophy of the Physical Sciences (3)

Prerequisite: completion of disciplinary core section of general education program or consent of instructor. Space, time, and relativity; quantum mechanics, causality and real existence; laws, theories, models; topics in history of science. (Same as Physics 384)

#### 386 Philosophy of Biology (3)

Prerequisite: completion of general education requirements in Biological Science.

Conceptual foundations of biological science and especially of evolutionary theory.

Applicability of such concepts as natural law, theory reduction, emergence and teleology to the investigation of living things from the molecular to the ecological level.

# 399 Directed Study (1-3)

Prerequisite: approval of department.

Supervised individual study as an elective. May be repeated for credit with different content.

No more than three units may be taken with any one adviser in any one semester.

# 400 Ethical and Professional Issues in Human Services (3)

(Same as Human Services 400)

# 401 Knowledge in the Arts and Sciences (3)

Prerequisites: Liberal Studies 304 and either Liberal Studies 303 or 305. A philosophical analysis and comparison of how the natural sciences, the social sciences, and the arts and humanities apply epistemological or aesthetic criteria to assess scientific and artistic activities. Discussion of the evolution of these criteria in their social and ideological context.

#### 410 Ethical Theory (3)

Prerequisite: prior course in ethics or instructor's consent. An examination of major ethical theories as advanced by such authors as Aristotle, Kant, Mill, and Rawls.

### 415 Research Ethics (3)

Prerequisite: Philosophy 310 or consent of the instructor. Examines the ethical principles and problems implicit in the conduct of scientific research, with special attention to issues of scientific integrity, fraud, deception, data accuracy, authorship credit, and use of research funds, especially when animal or human subjects are used.

# 420 Metaphysics (3)

Prerequisite: six units in philosophy or consent of instructor. Metaphysics and metaphysical issues such as reality, universals, space, time, substance, identity and difference, causality, permanence and change, freedom and determinism, minds and bodies.

# 425 Introduction to Phenomenology (3)

Prerequisite: six units in philosophy or consent of instructor. The historical background and basic viewpoints which have provided a framework for philosophical research and study in the writings of Husserl, Heidegger, Sartre and Merleau-Ponty.

# 430 Epistemology (3)

Prerequisite: six units in philosophy or consent of instructor. The nature of knowledge, belief, certainty, truth, perception, and the a priori; examinations of skepticism, traditional responses to skepticism, and the foundations of knowledge.

## 440 Philosophy of Mind (3)

Prerequisite: six units in philosophy or consent of instructor. The concept of mind, and such related issues as the mind-body relation, behavior, consciousness, voluntary action, weakness of will, and our knowledge of other minds.

#### 447T Seminar in Selected Problems (3)

Prerequisite: six units in philosophy or consent of instructor. Intensive study of one philosophical concern, such as an individual philosopher or topic. May be repeated with different content for additional credit.

#### 455 Seminar in Values (3)

Prerequisite: Appropriate course from among Philosophy 310, 311, 410, or consent of instructor. Valuation or some important form of value: ethical, aesthetic, political. May be repeated with different content for additional credit.

#### 460 Seminar in Logic and Language (3)

Prerequisite: appropriate course from among Philosophy 368, 369, 375. Advanced topics in logic or philosophy of language; or foundations of logic and mathematics. May be repeated with different content for additional credit.

# 470 Seminar in Metaphysics and Epistemology (3)

Prerequisite: Philosophy 420 or 430 or 440, or consent of instructor. Topics covered include metaphysics and epistemology such as reality, substance, mind, action, cause, knowledge and truth.

# 480 Seminar in the History of Philosophy (3)

Prerequisite: an appropriate course from among Philosophy 290, 291, 300, 301, or consent of instructor. Course covers some important work, figure, school or problem in the history of philosophy before 1900.

# 490 Seminar in Contemporary Philosophy (3)

Prerequisite: appropriate course work or consent of instructor. Issues raised by such 20th-century philosophers as Russell, Moore, Wittgenstein, Austin, Quine, Husserl, Heidegger, Merleau-Ponty or Foucault.

## 499 Independent Study (1-3)

Prerequisite: approval of department. To develop competency in research. May be repeated for credit. No more than three units may be taken with any one adviser in any one semester.

# physics

#### **DEPARTMENT CHAIR**

Mark H. Shapiro

# **DEPARTMENT OFFICE**

McCarthy Hall 611

#### **PROGRAMS OFFERED**

Bachelor of Science in Physics Minor in Physics Master of Science in Physics

#### **FACULTY**

Kwang-Ping Cheng, Roger Dittmann, James Feagin, Heidi Fearn, Kolf Jayaweera, Murtadha Khakoo, Roger Nanes, Mark Shapiro, Keith Wanser, Dorothy Woolum.

## **ADVISERS**

Undergraduate programs

James Feagin/Morty Khakoo

Graduate program

Mark Shapiro

#### INTRODUCTION

Physics is the natural science that deals with the properties and interactions of matter and radiation. As such, physics provides the fundamental basis for all other sciences, and for applied science fields such as engineering and the health sciences. Many physicists engage in research designed to expand the frontiers of physical knowledge; others engage in the application of physics concepts in industry, and in private and government laboratories.



The physics major program can provide the education necessary for the student to continue studies at the graduate level that, in turn, lead to the master's and doctoral degrees. Alternatively, the physics

major program can provide the education necessary for the student to work immediately upon graduation with the bachelor's degree, either in industry or government labs, in applied physics fields, or in teaching at the secondary school level.

Each student's study program is formalized in an approved study plan that provides the type of education that will best suit that student's needs upon graduation. The emphasis of the study plan is physical theory and mathematics for those planning on graduate school, while the emphasis is the more applied courses (such as physical electronics), including advanced laboratory work, for those planning to work in applied physics upon graduation.

Students are encouraged to obtain research experience by working with faculty in their ongoing research efforts. Physics 495, Internship in Physics, provides practical work experience that integrates classroom studies with the needs and methods of modern industrial science.

## **BACHELOR OF SCIENCE IN PHYSICS**

Lower-Division (32 units)

General Chemistry (Chem 120A,125) (8)

Mathematics (Math 150A,B and 250A) (12)

Fundamental Physics (Physics 225,226,227 and 225L,226L, 227L) (12)

Note: Students may take Chemistry 120B in place of Chemistry 125.

Upper-Division (21 units)

Physics 300 Survey of Mathematical Physics (3)

Physics 310 Thermodynamics, Kinetic Theory and Statistical Physics (3)

Physics 320 Classical Mechanics (4)

Physics 330 Electromagnetic Theory (4)

Physics 340 Modern Physics (4)
Physics 380 Methods of Experimental
Physics (3)

# Upper-Division Physics Electives (14 units)

Additional adviser-approved upper-division units in physics one of which must be a laboratory course.

*Note:* For students completing a minor or second major in mathematics, in another science, in engineering, or in computer science, the upper-division requirement is 12 units in physics rather than 14.

# Upper-Division Science and Engineering Electives (3)

Additional upper-division courses in mathematics, science, engineering and/or computer science approved by the department.

# Upper-Division Writing Requirement (3 units)

English 301 Advanced College Writing
OR English 360 Scientific and Technical
Writing

# Other Requirements

Each course in physics, mathematics, chemistry and English that is required for the major must be completed with grade of C or better.

Formal academic advisement is required for all physics majors at least once every academic year. Each physics major must file a plan of study with the Physics Department prior to the student's enrollment in upperdivision physics courses. This plan must be approved by the department chair.

## MINOR IN PHYSICS

# Lower-Division (12 units)

Fundamental Physics (Physics 225,226,227 and 225L,226L, 227L)

# Upper-Division (9 units)

Upper-Division Experimental Physics (3)
Additional upper-division units in physics, selected in consultation with the department academic adviser with approval by both the adviser and the department chair. (6)

## **TEACHING CREDENTIAL**

Students should first contact the Department of Secondary Education office, Education Classroom 379 (714-278-3411) to get information on attending an overview presentation which is the orientation to the Single Subject Credential Program and then

consult the department for further program details.

#### **MASTER OF SCIENCE IN PHYSICS**

#### Required Core Course (12 units)

Physics 510 Mathematical Physics (3)
Physics 520 Analytical Mechanics (3)
Physics 530A Electromagnetic Theory I (3)
Physics 555A Quantum Physics I (3)

# Additional 500-Level Requirements (6 units)

Physics 599 Independent Graduate Research (3)

Physics 530B Electromagnetic Theory II (3)
OR Physics 555B Quantum Physics II (3)
OR Physics 416 Thermal and Statistical
Physics (3)
(if equivalent was not used to satisfy
baccalaureate requirements)

## Electives (8-12 units)

Electives are chosen in consultation with the graduate adviser. Electives may be chosen from any 400-level or 500-level physics course with exception of Physics 410, 455, 496, 499 and other courses which were used to satisfy baccalaureate degree requirements. In cases where the research objectives or career goals are interdisciplinary in nature, courses may be chosen in other fields (e.g. mathematics, chemistry, engineering, biology, geological science, science/teacher education).

# Thesis or Comprehensive Exam (0-4 units)

Physics 598 Thesis (1-4) or Comprehensive Exam

#### **PHYSICS COURSES**

A grade of C or better is required in all prerequisite courses. Prerequisite requirements with exception of the grade requirement may be waived by the instructor of the course if the instructor is satisfied that the student is qualified to undertake the course.

## 101 Survey of Astronomy and Physics (3)

Basic concepts of astronomy and physics. Applications to the evolution of the universe, development of the solar system, and contemporary topics including lasers, space exploration, and energy. For non-science majors.

# 101L Survey of Astronomy and Physics Laboratory (1)

Concurrent enrollment in Physics 101 required. Experiments that demonstrate important concepts in astronomy and physics. For non-science majors.

#### 115 Introductory Physics (4)

Prerequisites: High school algebra, geometry, and intermediate algebra. Development of problem solving skills in basic physics. For students with limited background in physics who plan to take additional physics courses. Does not fulfill physics requirements for majors or minors in the physical or biological sciences. (3 hours lecture, 1 hour recitation)

# 200 Introduction to Astronomy (4)

High school algebra recommended. Celestial motion, the solar system, galactic structure, theories of the origin of the universe and the solar system. (3 hours lecture, 1 hour of activity, field trips to planetariums and/or observatories and observing sessions).

#### 211 Elementary Physics (3)

Corequisites: Mathematics 130 or 150A, Physics 211L. An introduction to mechanics and thermodynamics. Designed for life and health science majors. (211 & 211L = CAN PHYS 2; 211, 211L & 212, 212L = CAN PHYS SEQ A)

# 212 Elementary Physics (3)

Prerequisite: Physics 211 with a grade of C of better. Corequisite: Physics 212L. An introduction to electricity and magnetism, wave motion and optics. Designed for life and health science majors. (212 & 212L = CAN PHYS 4)

# 211L, 212L Elementary Physics: Laboratory (1,1)

Laboratory for 211, 212. Concurrent enrollment in the corresponding 211,212 lecture required. (3 hours laboratory). (211 & 211L = CAN PHYS 2; 212 & 212L = CAN PHYS 4)

# 225 Fundamental Physics: Mechanics (3)

Prerequisite: Mathematics 150A.

Concurrent enrollment in 225L required.

Classical Newtonian mechanics; linear and circular motion; energy; linear/angular momentum; systems of particles; rigid body motion; wave motion and sound. (225 & 225L = CAN PHYS 8; 225, 225L & 226, 226L & 227 = CAN PHYS SEQ B)

# 226 Fundamental Physics: Electricity and Magnetism (3)

Prerequisite: Mathematics 150B and Physics 225 or equivalent; concurrent enrollment in Physics 226L required. Electrostatics, electric potential, capacitance, dielectrics, electrical circuits, resistance, emf, electromagnetic induction, magnetism and magnetic materials, and introduction to Maxwell's equations. (226 & 226L = CAN PHYS 12)

# 227 Fundamental Physics: Waves, Optics, and Modern Physics (3 or 1)

Prerequisite: Physics 226 with a grade of C or better, or equivalent. Concurrent enrollment in Physics 227L laboratory required except for Biochemistry, Chemistry and Mechanical Engineering majors who may enroll for 1 unit credit (optics component). All others must enroll for 3 units credit. Geometrical and physical optics, wave phenomena; quantum physics, including the photoelectric effect, line spectra and the Bohr atom; the wave nature of matter, Schroedinger's equation and solutions; the Uncertainty Principle, special theory of relativity. (225, 225L & 226, 226L & 227 = CAN PHYS SEQ B)

# 225L,226L, 227L Fundamental Physics: Laboratory (1,1,1)

Laboratory for Physics 225,226,227.

Concurrent enrollment in the corresponding 225,226,227 lecture required (3 hours laboratory). (225 & 225L = CAN PHYS 8; 226 & 226L = CAN PHYS 12)

# 300 Survey of Mathematical Physics (3)

Prerequisite: Mathematics 250A. Survey of mathematical techniques required for upper division physics courses including differential vector operators, complex variables, partial and ordinary differential equations, special functions, Fourier transforms and series, matrices and operators, probability and statistics.

# 301 Energy and the Environment (3)

Prerequisite: Completion of general education requirement in physical science or earth and astronomical science. Basic physical principles applied to the generation and use of energy. Conventional and alternative energy sources. Environmental consequences of energy use, greenhouse effect, global warming. Energy conservation principles.

# 310 Thermodynamics, Kinetic Theory, and Statistical Physics (3)

Prerequisite: Physics 227 and Physics 300. Laws of thermodynamics with physical, chemical and engineering applications; kinetic theory of gases. Introduction to statistical physics with reexamination of laws of thermodynamics.

# 315 Computational Physics (3)

Prerequisite: Physics 227; previous computing experience recommended. Basic numerical methods in physics. Applications include curve fitting and minimization, numerical simulation of classical particles, waves and Fourier analysis, quantum square well, Monte Carlo methods and diffusion. Hands-on computing with high-level languages, graphics and symbolic mathematics. (1 hour lecture, 4 hours activity)

## 320 Classical Mechanics (4)

Prerequisites: Physics 227 and Physics 300. Classical mechanics and associated mathematical and numerical techniques: Newtonian dynamics; Lagrangian and Hamiltonian dynamics.

# 330 Electromagnetic Theory (4)

Prerequisites: Physics 227 and Physics 300. Applications of vector calculus and Maxwell's equations to the propagation of EM waves in dielectrics, plasmas, and conductors.

Selected topics in radiation, diffraction, and eigenfunction expansions of static and waveguide fields.

# 340 Modern Physics (4)

Prerequisites: Physics 227 and Physics 300. A survey of modern physical theories, their experimental foundations and applications: special relativity; quantum physics of atoms, molecules, and nuclei; introduction to solid state physics.

# 380 Methods of Experimental Physics (3)

Prerequisite: Physics 226. Experiments using analog, digital, and integrated circuits including: filtering circuits, diodes, transistor amplifiers, operational amplifiers, triggers, and digital logic. Introduction to automated experimentation. (1 hour lecture, 6 hours laboratory).

# 384 Philosophy of Physical Sciences (3) (Same as Philosophy 384)

# 414 Physics of the Solar System (3)

Prerequisites: Physics 227 and Physics 300; Physics 310 recommended. Solar system physics, including physical principles underlying current experiments in planetary

science and space physics. Solar physics; planetary dynamics; experimental probes of planetary surfaces, interiors and atmospheres; physical constraints on theories of the solar system origin.

## 416 Thermal and Statistical Physics (3)

Prerequisites: Physics 227 and Physics 300. The disciplines of thermodynamics statistical mechanics and kinetic theory (and their applications); their unifying microscopic foundation.

# 454 Introduction to the Solid State of Matter (3)

Prerequisites: Physics 227 and Physics 300. The physical properties of matter in the solid state, as explained by atomic theory. Crystal structure, thermal, electric and magnetic properties of metals, semiconductors, band theory and solid state devices.

# 455 Introduction to Quantum Physics (3)

Prerequisites: Physics 227 and Physics 300. The concepts and theory of quantum physics. Early quantum theories, the Schroedinger equation, eigenvalue equations, operators, commutation properties, applications to simple quantum systems, angular momentum.

# 460T Advanced Topics in Contemporary Physics (3)

Prerequisite: Upper-division standing in physics and consent of instructor and department chair. An advanced lecture course covering a field of physics of current interest not covered in other courses, such as plasma physics, superconductivity, solid state devices, fiber optics and photonics, astrophysics, subatomic physics. May be repeated for credit with a different topic.

# 471 Electronic Circuit Theory (3)

Prerequisites: Physics 227 and Physics 300. Operating characteristics of transistors and semiconductor diodes. Linear circuit theory for alternating currents and for transient currents. Switching and pulse circuits. Digital electronics.

## 476 Atomic Structure (3)

Prerequisite: Physics 455. Theory of atomic structure, interaction of radiation with matter and perturbation theory. Angular momentum and coupling schemes.

#### 481 Experimental Physics (3)

Prerequisites: Physics 227, Physics 380 recommended. Techniques and methods of experimental physics including: use of sensors, transducers, time series, power spectra, phase sensitive detection, computer interfacing and signal conditioning. Experiments cover several areas of physics. (1 hour lecture, 6 hours laboratory).

## 482 Modern Optics Laboratory (3)

Prerequisites: Physics 227 and Physics 300. Physics 380 and Physics 411 recommended. Experiments in optics, including: Fourier optics, holography, fiber optics, diffraction, interferometry, laser physics, light scattering, optical detection including photon counting and photographic techniques. (1 hour lecture, 6 hours laboratory).

# 495 Internship (1-3)

Prerequisites: upper-division standing in physics and consent of the chair. Professional physics work in industry or government, to provide an in-depth experience. Written report is required. May be repeated once for credit.

## 496 Student-to-Student Tutorials (1-3)

Prerequisite: upper-division standing and consent of chair. Students learn through teaching, increase mastery of subject matter, develop awareness of teaching problems and competence in teaching techniques. Consult "Student-to-Student Tutorials" in this catalog for more complete course description.

#### 499 Independent Study (1-3)

Prerequisite: approval of study plan by department chair and instructor. Topic in physics, selected in consultation with and completed under the supervision of the instructor. May be repeated for credit to a maximum of six units.

## 510 Mathematical Physics (3)

Prerequisites: Physics 300 or 410.

Advanced techniques in mathematical physics: calculus of variation, coordinate transformations, tensor analysis, special functions, series solutions of differential equations, orthogonal functions, partial differential equations, numerical techniques for the solution of differential equations, complex variables, integral transforms, probability, Monte Carlo methods.

## 520 Analytical Mechanics (3)

Prerequisites: Physics 330 and 510.

Advanced techniques for solution of problems in classical mechanics: Lagrangian and Hamiltonian formulations of the equations of motion, variational techniques, conservation theorems, canonical transformations, Hamilton-Jacobi theory, numerical techniques, selected applications.

## 530A Electromagnetic Theory I (3)

Prerequisite: Physics 330. Corequisite: Physics 510. Classical electromagnetic theory: boundary value problems in electrostatics, multipoles, electrostatics of macroscopic media, magnetostatics, time-varying fields, Maxwell's equations, plane electromagnetic waves, and wave propogation.

#### 530B Electromagnetic Theory II (3)

Prerequisite: Physics 510 and 530A. Advanced electromagnetic theory: wave guides and cavities, radiating systems, scattering, diffraction, relativistic effects, collisions between charged particles, radiation from moving charges, multipole fields, radiation damping, absorption and radiation by sound systems.

# 555A Quantum Physics I (3)

Prerequisites: Physics 340 and 455 (recommended). Corequisite: Physics 510.

Principles and techniques of modern quantum mechanics, applications to simple three-dimensional systems, properties of angular momentum.

# 555B Quantum Physics II (3)

Prerequsites: Physics 510 and 555A.

Corequisite: Physics 520. Advanced topics in quantum physics: scattering theory, electron spin, perturbation theory and applications, approximation methods for time dependent problems, systems of identical particles.

# 560T Advanced Topics in Contemporary Physics (3)

Prerequisite: Upper-division or graduate standing in physics and consent of instructor and department chair. Current advanced research topics in physics, including astrophysics, atomic theory and experiment, condensed matter, fiber optics/photonics, numerical methods, physics pedagogy, quatum electrodynamics. May be repeated for credit.

#### 598 Thesis (1-4)

Planning, preparation and completion of an acceptable thesis in partial fulfillment of the requirements for the master's degree. Credit to be obtained only upon formal submission of thesis.

# 599 Independent Graduate Research (1-3)

Prerequisite: written approval of study plan by department committee and by instructor. Open only to graduate students and only with consent of a faculty member. May be repeated for credit.

# political science

# DIVISION OF POLITICAL SCIENCE AND CRIMINAL JUSTICE

## **DIVISION CHAIR:**

Keith O. Boyum

#### **DIVISION OFFICE:**

University Hall 511

#### **PROGRAMS OFFERED**

Bachelor of Arts in Political Science

Concentration in Public

Minor in International Politics

Minor in Political Science

Minor in Public Administration

Master of Arts in Political Science

Master of Public Administration

# FACULTY

Keith Boyum, Michael Brown, Vincent Buck, Bert Buzan, Phillip Gianos, Harvey Grody, Alana Northrop, Paul Peretz, Alan Saltzstein, Choudhury Shamim, Vera Simone, J. Owens Smith, Raphael Sonenshein, Barbara Stone, Sandra Sutphen, Yuan Ting, Bruce Wright, Jon Yinger.

#### INTRODUCTION

Political science is the study of people's behavior as it relates to power and public organizations. The discipline is normally divided into six subfields:

Political philosophy, which deals with normative questions about how power should be used and distributed, rights and obligations, the nature of justice and the ideal state.

American politics, which is concerned with campaigns and elections, parties, elected execu-

tives, legislative processes, and issues of public policy.

Public administration, the role played by public employees in policy making, planning, personnel management, taxation and finance, and in responding to the needs and problems of communities and the nation.



Public law, which involves the judicial process, civil rights and liberties, and the significance of such terms as lequal opportunity and idue process in the United States.

Comparative government, which raises the same questions of politics, administration and law about other countries, and moves toward conclusions based on comparisons between them.

International politics, which is concerned with relations between the states and other international actors such as multinational corporations and the United Nations and with the underlying realities of power, based on resources, wealth, military preparedness and national security.

A major in political science prepares students for law school, government employment on the local, state and national levels, foreign service, teaching, business, journalism, or leadership in civic and political activities.

The department offers a concentration in public administration for those who seek careers in public service. The concentration describes the environment in which the profession exists and the concepts and goals which underlie such functions as budgeting, personnel work, policy analysis, and management. Experience is gained through the administrative internship.

For prelaw students, the department provides a series of law-related courses numbered in the 370 and 470 series (see course descriptions). There is a prelaw adviser and an active Prelaw Society which enables students to make close and direct contact with the work of attorneys, judges, etc. The department is closely tied to the College Legal Clinic, which provides free legal advice for students and others who cannot afford the usual costs.

#### **ADVISERS**

The department emphasizes proper advisement, and all majors are strongly urged to talk with an adviser as soon as possible after entering the program. The adviser helps with study plans, and gives information about career possibilities, including law and other graduate schools, postbaccalaureate fellowships and scholarships, and job possibilities in local government.

#### INTERNSHIPS

The department offers a variety of internships. Each one involves students in working in an agency or political organization, and in meeting in an on-campus seminar to discuss and analyze their experiences. Internship courses are numbered 298, 491, 492, 497 and 498 (see course descriptions).

# POLITICAL SCIENCE HONORS PROGRAM

The department honors program provides an enriched learning experience for a selected group of students and encourages closer interaction between these students and faculty members in specialized fields of interest. Eligibility requires senior standing, a major in political science, 3.0 overall grade point average and 3.25 grade point average in all political science course work, plus recommendation for admission to the program from a faculty member in the department.

# BACHELOR OF ARTS IN POLITICAL SCIENCE

#### **Basic Requirements**

The major consists of 39 units of political science. Political Science 100, a graduation requirement for all students, is not part of the major, but is a prerequisite to further work in political science. Not more than 12 units total (Political Science 200 plus nine other units) may be in the lower division. In addition, nine additional adviser-approved upperdivision units are required in related disciplines, such as American studies, anthropology, criminal justice, economics, geography, history, philosophy, psychology, sociology, and statistics.

The following requirements apply to majors except those who declare a concentration in public administration (see below).

## Introductory Requirements (3 units)

Political Science 200 Introduction to the Study of Politics

## Political Philosophy Requirement (3 units)

Political Science 340 Political Philosophy

## Breadth Requirements (12 units)

Choose four of the following five:

Political Science 310 Political Behavior and Motivation (3)

OR Political Science 315 American Policy-Making Processes (3)

- Political Science 320 Introduction to Public

  Management & Policy (3)
- Political Science 330 Politics in Nation-States (3)
- Political Science 350 World Politics in the 21st Century (3)
  - OR Political Science 352 American Foreign Policy (3)
- Political Science 375 Law, Politics & Society (3)

# Research Methods Requirement (3 units)

Choose one of the following:

- Political Science 321 Research in Public Management (3)
- Political Science 351 International Politics: Tools for Analysis (3)
- Political Science 376 Legal Tools for Political Research (3)
- Political Science 407 Polls, Statistics and Political Interpretation

# Upper Division Writing Requirement

Political Science majors fulfill the university is upper-division writing requirement by completing two upper-division classes specially approved for this purpose. Please check with the department office for a current list of qualifying classes.

# Electives for the Major (18 units)

Choose six other courses in political science sufficient to achieve a total of 39 units. The upper-division writing requirement is normally fulfilled by choosing appropriate electives.

# CONCENTRATION IN PUBLIC ADMINISTRATION

The major in political science, concentration in public administration, consists of 39 units of political science. Political Science 100, a graduate requirement for all students, is not part of the concentration or the major, but is a prerequisite to further work in political science. Not more than 12 units total (Political Science 200, plus nine other units) may be in the lower division. In addition, nine additional adviser-approved upper-division units are required in related disciplines, as described below.

# Introductory Requirements (6 units)

Political Science 200 Introduction to the Study of Politics (3)

Political Science/Criminal Justice 320
Introduction to Public Management (3)

# Urban and Public Policy Requirement (9 units)

Choose three of the following eight:

- Political Science 300 Contemporary Issues in California Government & Politics (3)
- Political Science 309 Introduction to
  Metropolitan Politics (3)
- Political Science 315 American Policy-Making Processes (3)
- Political Science 344 AIDS & The Health Care Crisis (3)
- Political Science 352 American Foreign Policy (3)
- Political Science 403 Politics and Policy in Sacramento (3)
- Political Science 427 Policy-Making: Urban/Metropolitan Issues (3)
- Political Science 456 The National Security Establishment (3)

# Administrative and Management Requirement (9 units)

Choose three of the following seven:

- Political Science 421 Government and the Economy (3)
- Political Science 422 Human Resources
  Management (3)
- Political Science 475 Administrative Law (3)
- Political Science 478 Urban Planning Principles (3) (same as Geography 478)
- Political Science 484 Urban Planning
  Methods (3) (same as Geography 484)
- Political Science 497 Internship in Public Administration (3)
- Management 441 Labor-Management Relations (3)

# Research Methods Requirement (3)

Choose one of the following:

- Political Science 321 Research in Public

  Management (3)
- Political Science 407 Polls, Statistics and Political Interpretation (3)

# Upper Division Writing Requirement

Political Science majors with a public administration concentration fulfill the university's upper division writing requirement by completing two upper-division classes specially approved for this purpose. Please check with the department office for a current list of qualifying classes.

## Electives for the Major (12 units)

Please see an adviser for a list of recommended courses. The upper-division writing requirement is normally fulfilled by choosing appropriate electives.

## MINOR IN INTERNATIONAL POLITICS

The minor consists of 18 units, of which 12 must be in political science. Political Science 100 and 200 are required as well as at least six units from: Political Science 350, 352, or 457. The remaining units must be taken from Political Science 350, 352, or 457 (if not already taken to fulfill the six-unit requirement specified above), Communications 426, Economics 330, Economics 335, History 485, and Political Science 330, 331, 351, 353, 430T, 431T, 433, 434, 435, 437, 438, 439, 451T, 452T, 454, 455, 456, 461, or 476. Students who wish to specialize in a specific geographical area are encouraged to investigate the possibility of taking related units in anthropology, economics, foreign languages, geography, history and literature, etc.

#### **MINOR IN POLITICAL SCIENCE**

The minor is composed of 18 units in political science courses, 12 of which are upper-division political science courses. Political Science 100, a graduation requirement, counts toward the minor.

# MINOR IN PUBLIC ADMINISTRATION

The minor consists of 18 units. Students must take Political Science 320, 421 or 422, and 12 additional units. Three of these 12 units may be lower-division (e.g. Political Science 100 or 200) and nine must be at the 300/400 level including at least one of Political Science 300, 309, 315, 344, 402, 403, 414, 416, 421, 422, 427, 446, 448, 472, 473, 474, 475, 478, or 484.

# MASTER OF ARTS IN POLITICAL SCIENCE

The degree is designed both to enlarge and deepen the competence of political science students. It is especially planned for the professional improvement and advancement of high school and community college teachers, government employees, and military personnel. It also prepares students for entering a doctoral program in political science or for law school. The M.A. program provides training and preparation for journalists, special librarians, and research staffers and for all people active in civic affairs and political life.

# Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted.

In addition to the university requirements, acceptance into the M.A. in the political science program requires a grade-point average of 3.0 in the major field and in all political science courses. If the major is not in one of the social sciences, the GPA requirement also applies to upper-division social science courses taken. If a student's GPA does not meet these criteria, the student may appeal to the department's graduate committee for a waiver.

Normally, admission to the master's program requires that a student possess a bacheloris degree in political science, or a minor in political science, or a major in an allied social science field with a minimum of 15 units of political science courses. For those without such a background, the M.A. Coordinator may require the applicant to take a group of upper-division political science courses at the 300 and/or 400 level (not more than nine units of which will be at the 300 level) prior to admission to the program. This requirement is to assure that the student will be prepared for graduate-level work in the discipline of political science.

# Graduate Standing: Classified

A student admitted to conditionally classified status may apply for classified standing which requires development of an approved study plan prior to completion of nine units. Refer to the "Graduate Regulations" section of this catalog for further information on classified standing and general study plan requirements.

# Study Plan

Each candidate for a degree should, in consultation with the graduate adviser, arrange for the appointment of a graduate committee, composed of three faculty members, one of whom will serve as chair. This committee will approve the study plan, conduct the examination(s) and supervise the thesis if the student chooses that option.

As a requirement for admission to classified standing, the student, in cooperation with the graduate program adviser, must develop a study plan of 30 units of course work:

 15 units of required seminar work in political science. Students are required to take aminimum of one seminar each semester until completion of the entire sequence.

Scope and Theory of Political Science

Political Science 540 Seminar Readings in Political Philosophy (3)

Political Science 541 Seminar in Contemporary Political Theory (3)

American Politics/Public Affairs

Political Science 511 Seminar in American Politics (3)

Political Science 519 State and Local Government (3)

OR Political Science 509 Administrative Organization and Process (3)

OR Political Science 525 Seminar in Metropolitan Area Government (3)

OR Political Science 528 Seminar in Public Administration and Policy (3)

Cross-National Politics

Political Science 530 Seminar in Cross-National Politics (3)

15 units of elective course work in political science (adviser-approved 400 and/or 500-level classes). These will normally be classes in a studentis chosen area of specialization. They may include, where appropriate, 599 Independent Graduate Research (6 units maximum) and either 597 Project (3 units) or 598 Thesis (3-6 units).

No more than nine units taken prior to classified standing may be applied to a studentis study plan. No more than nine units taken at another institution may be transferred, and these must be approved by the adviser, committee and Office of Graduate Studies.

Research Skills

Each candidate must demonstrate one of the following:

- Reading knowledge of a foreign language. Students must complete this requirement by passing an examination.
- Proficiency in quantitative research skills, including data analysis and research design as demonstrated by successful completion of Political Science 407 Polls, Statistics and Political Interpretation, or its equivalent.

#### Comprehensive Examinations

All students will successfully complete written and oral examinations in Scope and Theory of Political Science, American Politics/Public Affairs and Cross-National Politics. All three sections must be successfully completed or the entire examination must be retaken. The examination has a written and an oral component. A student who does not pass the written portion is ineligible to take the oral test. The examinations may be retaken only once after an initial failure.

For advisement and further information, consult the M.A. in Political Science adviser.

#### MASTER OF PUBLIC ADMINISTRATION

This professional degree is designed to disseminate the knowledge and skills needed for efficient and effective government. The program acquaints the student with the theoretical and practical skills needed to improve the practice of governmental management. It also prepares one to cope with the ethical and moral dimensions of the contemporary policy maker. Career guidance, working experience and placement are important components of the program. It is designed to:

- 1. Prepare students who wish to enter the field of public administration;
- Increase the professional competence of those already embarked in public administration careers;
- Furnish academic study for those wishing to pursue doctoral work; and
- Provide specialized training in areas such as financial administration, personnel administration, administrative research, planning and criminal justice.

The program is designed to aid the student in acquiring several skills. These include:

- Written and oral communication for public administration;
- Public administration research and analysis techniques;
- Knowledge of organizational processes and behavior;
- An understanding of federal, state and local governmental and administrative systems and processes; and
- Knowledge of administrative techniques and practices such as personnel testing, program budgeting and management by objectives.

Students may also develop knowledge of various specialized areas of employment such as criminal justice, human services administration, health administration and gerontology.

# Admission to Graduate Standing: Conditionally Classified

One may become conditionally classified in the Master of Public Administration program if the university requirements for admission are met. These requirements are: a baccalaureate degree from an accredited institution and a grade point average of at least 2.75 in the last 60 semester units attempted (see iGraduate Regulationsi section of this catalog for complete statement and procedures).

# Graduate Standing: Classified

A student who meets the above requirements may become a classified student if the following conditions are met:

- 1. Completion of a minimum of 12 semester units of undergraduate course work in the social sciences, six semester units of which must have been upper-division level. At least one of the courses must have been in economics. These social science courses, to satisfy this requirement, must have included such curriculum components as: social, political and legal environment; cultural, ethical and social values: levels and institutions of government; human behavior in organizations; concepts and practices of administration; and political processes of government. Upon recommendation of the public administration faculty, suitable practical experience may be substituted for a maximum of six units of the social science requirement.
- 2. Completion of a one-semester course in basic statistics;
- 3. Satisfying at least one of the following conditions:
  - A. A grade-point average of at least 3.25 in the undergraduate major and 2.75 in the last 60 units;
  - B. Between 2.75 and 3.24 in the under graduate major, 2.5 in the last 60 units, and at least 1000 combined score on the General Test of the Graduate Record Exam;
  - C. Between 2.75 and 3.24 in the under graduate major, 2.75 in the last 60 units, and quality professional experi-

- ence as evaluated by the M.P.A. coordinator based on job description, resume, two letters of reference, and four years of professional administrative service:
- D. A grade-point average of at least 2.75 in the last 60 semester units and completion of the first twelve units of adviser-approved course work in this program with a grade-point average of 3.25.
- 4. A minimum TOEFL score of 570 (international students only).
- 5. Approval of a study plan through consultation with the M.P.A. coordinator.

## Study Plan

The degree study plan must include a minimum of 39 semester units of adviser-approved course work which meets the following requirements:

- Eighteen units of required core course work in public administration as follows:
  - Political Science 521 Seminar in Public Administration Theory (3)
  - Political Science 523 Administrative Research and Analysis (3)
  - Political Science 526 Seminar in Administrative Behavior (3)
  - Political Science 571 Seminar in Public Finance (3)
  - Political Science 572 Seminar in Public Sector Human Resource Management (3)

And one of the following:

Political Science 519 State and Local Government (3)

Political Science 525 Seminar in
Metropolitan Area Government (3)
Political Science 528 Seminar in Public

Administration and Policy (3)

Students who do not have adequate public service experience will be required to take three units of credit in the public administration internship in addition to the minimum 39 units required for the degree.

- Students who have not completed a foundations of public administration course within the last three years will be required to take Political Science 509 Administrative Organization and Processes.
- 4. Student electives should be planned in accordance with career objectives and must include at least two courses in one of these areas: public finance, human resources, or urban management.

- 5. Candidates for the M.P.A. degree must successfully pass a written comprehensive examination in public administration, or a candidate may, with the approval of the M.P.A. adviser, choose either the project (Political Science 597) or the thesis (Political Science 598) in lieu of the comprehensive examination. Both the project and the thesis earn three units of course work each and include a final oral defense.
- Candidates who enroll in 400-level courses will be required to do additional work beyond that required of undergraduates.
- 7. A minimum of half the units must be completed at the 500-level.
- No more than nine units of postgraduate course work taken prior to classified standing may be applied to the masteris degree program.
- Students must demonstrate competence in computer literacy. See the M.P.A. coordinator for details.

#### **POLITICAL SCIENCE COURSES**

Political Science 100 or its equivalent is the prerequisite for all upper-division political science courses. Prerequisites may be waived only with consent of instructor.

# 100 American Government (3)

People, their politics, and power; contemporary issues, changing political styles and processes, institution and underlying values of the American political system. Satisfies state requirements in U.S. Constitution and California state and local government. (CAN GOVT 2)

# 200 Introduction to the Study of Politics (3)

An introduction to the study of politics in general, not simply American politics.

Explores the many faces of politics all over the world, examining its relationship to morality, culture, economics, justice and international affairs both theoretically and practically.

# 298 Political Externship (3)

Politics for the nonmajor or beginning political science student. Work in campaigns or in the offices of elected public officials; supervision by faculty and cooperating agency; seminars and individual conferences. May be repeated once.

# 300 Contemporary Issues in California Government and Politics (3)

Prerequisite: Political Science 100. The political process in state and local institutions; crisis in the cities, flight to the suburbs and race relations. Comparisons will be made with other states and their subdivisions.

Satisfies state requirement in California state and local government.

# 309 Introduction to Metropolitan Politics (3)

The inner city and suburbia. Political processes: power in the city, the urban-suburban relationship, political fragmentation, and the national government in urban areas.

#### 310 Political Behavior and Motivation (3)

The analysis of issues and divisions in American politics. Focus on race, class, ideology and party.

# 312 Contemporary Issues in Conflict (3)

Through opinionated debate and discussion between two professors with opposing viewpoints, we will explore current conflicts in federal and state elections, as well as other public issues. Open discussion will be encouraged.

# 315 American Policy-Making Processes (3)

Federal domestic policy making. The structure, functions and relationships among American national institutions, including executive, legislative and judicial branches, media, political parties and pressure groups.

# 317 Black Politics (3)

(Same as Afro 317)

# 320 Introduction to Public Management and Policy (3)

Introduction to the field of public administration. The course emphasizes current trends and problems of public sector agencies in such areas as organization behavior, public budgeting, personnel, planning, and policy making. Examples and cases from the Criminal Justice field are emphasized. (Same as Criminal Justice 320)

# 321 Research in Public Management (3)

Prerequisite: Political Science 320 (may be taken concurrently). Research concepts and techniques applied to public administration and policy analysis. Instructional fee.

#### 330 Politics in Nation-States (3)

Compares patterns of political behavior and interaction in various political systems.

# 331 Third World Politics Through Literature (3)

Examines comparative political life and circumstances of developing countries as depicted in their literature. In this literature we see the political problems, cultural underpinnings and governmental structures as they affect Third World peoples in their struggle to survive and grow.

# 340 Political Philosophy (3)

The major thinkers in the Western tradition of political philosophy from Plato to the present; the principal concepts and theories.

## 344 AIDS and the Health Care Crisis (3)

Prerequisite: Political Science 100 and junior/senior standing. Origins, causes, and epidemiology of AIDS from the perspective of policies, politics, and management practices in determining direction and effectiveness in control (education and intervention), health care delivery, and development of drug therapies and vaccines.

#### 350 World Politics in the 21st Century (3)

Political relationships among governments and other participants within the global system: internal and external factors influencing foreign policies of the great powers, their allies and minor powers; role of non-state actors such as the United Nations, multinational corporations and liberation movements.

# 351 International Politics: Tools for Analysis (3)

Prerequisite: Political Science 350 or Political Science 352 (may be taken concurrently). Research design, information sources and techniques applied in the scientific study of world politics.

## 352 American Foreign Policy (3)

United Statesí foreign policy since World War II. Institutions and bureaucracies of foreign policy decision-making, military and national security policy, domestic sources of foreign policy.

#### 361 Model United Nations (3)

Prerequisite: Prior MUN experience or consent of instructor. A practical decision making course where students participate in the national MUN conference in New York and others in California. The focus is on current politics in the UN and delegate preparation with emphasis on the art of lobbying, negotiation, bargaining and diplomacy.

#### 375 Law, Politics and Society (3)

Prerequisites: Political Science 100; and completion of General Education Section III, c.1, Introduction to the Social Sciences. Law as emergent from political processes, rooted within social norms and communities. Law as a feature of the modern state, a tool for seeking advantage, domination and/or liberation. An overview of legislative, judicial, administrative, and other political processes that produce law.

# 376 Legal Tools for Political Research (3)

Prerequisite: Political Science 375 (may be taken concurrently) or consent of instructor. Research concepts, techniques and legal tools applied to an individual research project in public law. Useful prelaw course.

#### 403 Politics and Policy in Sacramento (3)

Prerequisites: Political Science 100; upper division or graduate standing; and consent of instructor. The nature of policy making in Californiais state capital. Persistent policy themes and constraints; current issues in education policy. Required 3-day trip to Sacramento for seminars and policy briefings. Class times prior to Sacramento visit may vary.

# 405 Campaigns and Elections (3)

Prerequisites: Political Science 100 and consent of instructor. An exploration of modern political campaigns in America focusing on new types of candidates and electoral organizations; money, media and consultants; and methods of predicting and interpreting election results.

# 407 Polls, Statistics and Political Interpretation (3)

Quantitative research methods in political science. Introduction to research design and statistical measures employed in analyzing social science research data.

## 408 The Politics of Los Angeles (3)

Prerequisite: Political Science 100, 310, or 315 recommended. An examination of politics in Los Angeles, with special attention to race, class, ethnicity, and power. Comparative view places Los Angeles in big-city politics and in global perspective.

## 410 Political Parties (3)

The structure and methods by which the political parties operate in the American political system with some comparisons to their structure and operation in other democratic societies.

## 411 Art of Administration (3)

Prerequisite: consent of instructor. Public administration as lart1 rather than lscience.1 Administrative novels and other fictional literature, and other audio-visual media.

## 412 Practicing Politics (3)

Prerequisite: Political Science 100. Politics as practiced and understood by practitioners of the art. A seminar which features guest lecturers and focuses on electoral politics.

# 414 Legislatures and Politics (3)

Prerequisite: Political Science 100. The legislative process in Congress and state legislatures. Legislative behavior, policy, representation, and reform. Congressional oversight and the legislative roles of the President, bureaucracy and interest groups.

# 416 Presidents and the Presidency (3)

Presidential power, the resources on which that power is based, and the limitations on the use of that power. The relations between the President and Congress, the bureaucracy, the press and the public.

## 417 Film and Politics (3)

Prerequisite: Political Science 100.

American politics from the Twenties to the present as seen through eyes of film-makers. Besides viewing films, students will read material relevant to films and write several papers linking film themes to the literature of American politics.

## 421 Government and the Economy (3)

Prerequisite: Political Science 320 or any economics course. Reviews regulation and deregulation of business. Explores industrial policy. Examines government taxes and expenditures. Emphasis on national government.

## 422 Human Resources Management (3)

Prerequisite: Political Science/Criminal Justice 320. Civil service and the merit system; recruitment procedures and examinations; position classification, salary structures, retirement plans, in-service training, employee organizations and personnel supervision. Examples and cases from the Criminal Justice field emphasized. Emphasis on themes and topics from Criminal Justice. (Same as Criminal Justice 422)

# 427 Policy-Making: Urban/Metropolitan Issues (3)

Policy issues and alternatives in urban and metropolitan problem areas such as law enforcement, transportation, housing or poverty.

# 430T Government and Politics of a Selected Nation-State (3)

Prerequisite: Political Science 330 or consent of instructor. The political institutions and processes of a selected nation-state. May be repeated for credit.

# 431T Government and Politics of a Selected Area (3)

Prerequisite: Political Science 330 or consent of instructor. A systematic analysis of individual nation-states set against the backdrop of history, culture and economic circumstances in each case. May be repeated for credit.

## 433 Politics of the Asian Pacific (3)

Prerequisite: Political Science 100, 200, or 330. Compares both the domestic and international politics and policies of fifteen Asian Pacific countries. The political economics of these countries are considered in their historical, cultural and global context.

# 434 China and Japan: Friends or Foes? (3)

Prerequisite: Political Science 200 or 330. A comparison of the politics of Japan and China illuminates both similarities and differences in the premises, processes and policies of these two Asian giants.

# 435 Comparative Analysis of Developing Areas (3)

Prerequisites: Political Science 330 or equivalent. An introduction to the study of politics in non-Western settings. It is intended to acquaint the student with some of the problems of political/economic development in Third World settings on both empirical and theoretical levels.

#### 436 Politics of the Middle East (3)

Prerequisite: Political Science 330 or 350. An introduction to the study of political development in the Middle East. The internal and external factors shaping regional political/economic prospects will be explored.

#### 437 Latin American Politics (3)

Prerequisite: Latin America related course or Political Science 330 or equivalent.

Systematic analysis of government and politics in selected Latin American states.

Considers democratization, state structures, relation of politics to economics and alternative theories and approaches to comparative political analysis as applied to a region marked by ethnic and racial diversity.

### 438 Western European Democracies (3)

Prerequisite: Political Science 330 or equivalent. A comparative study of the government and politics of Western European democracies, including their cooperation within the European Union. Domestic as well as foreign policies will be analyzed.

# 439 Emerging Nations: Eastern Europe (3)

Prerequisite: Political Science 330 or equivalent. Countries from the Baltics to the Balkans have cast off communist rule, reasserting their national independence, starting the transition to democracy and the market system. This course offers a comparative analysis of this process.

# 443 The Theory and Philosophy of Marxism (3)

Prerequisite: Political Science 340. Marxist theory and philosophy from its pre-Hegelian roots to the present.

# 446 Corruption, Ethics and Public Policy (3)

Ethical problems which face persons in the public service. The focus is on practical decision-making.

# 447 Revolutions in Latin America (3)

Prerequisite: Political Science 100.

Comparative examination of selected movements of revolutionary change in Latin

America, emphasizing relation of theory and practice. Examples: Mexico, Cuba, Chile,

Nicaragua, El Salvador and Guatemala.

# 448 Media and Politics (3)

Prerequisite: Political Science 100. This course examines the structure and influence of the media in campaigns and in government. Key topics include: the relationship between media and politicians; the use of campaign advertising; and the stature and limits of investigative journalism.

#### 451T Problems in International Politics (3)

Prerequisite: Political Science 350.

Selected contemporary problems in world politics. See department bulletin for subject focus each semester. May be repeated for credit.

# 452T Foreign Policy of a Selected Country or Group of Countries (3)

Objectives, capabilities, policy-making processes and implementation of the foreign policies of a particular country or group of countries. Focus may be on United States, Soviet Union, Latin America or other countries or areas. May be repeated for credit.

#### 454 Russia/C.I.S. (3)

Prerequisite: Political Science 330 or equivalent. A study of the governmental institutions and political processes of Russia. While the Russian Federation will receive primary attention, the Commonwealth of Independent States (C.I.S.) will also be included as will Russian foreign policy.

# 455 International Relations of South Asia (3)

Prerequisite: Political Science 100. A comprehensive introduction to international relations, government, and politics of South Asia. Topics include political development, political institutions, political culture, the military and bureaucracy. Foreign policy analysis focuses on international political economy, security policies, nuclear proliferation, war, peace, and regional integration.

# 456 The National Security Establishment (3)

Conflicting theories of national security, the functions of defense and intelligence bureaucracies in foreign and domestic policy making, problems of arms control and the dangers to democratic values and institutions posed by the technology of national security.

#### 457 Politics of International Economics (3)

Prerequisite: Economics 100 or consent of instructor. The link between economics and international politics. The political economy of free trade and imperialism, of neo-colonialism and foreign aid.

# 460 The Chicano and Politics (3)

(Same as Chicano 460)

# 461 The United Nations and International Organizations (3)

Prerequisite: Political Science 350.

Structure, functions, and political processes of the United Nations, various specialized organizations such as the World Bank, and regional organizations such as the European Community.

## 472 The Judicial Process (3)

Prerequisites: Criminal Justice 300 or Political Science 375, or consent of instructor. The nature, functions and roles of courts. Roles of major participants in the American legal system, including judges, attorneys and citizens. The administration of justice as a system. (Same as Criminal Justice 472)

# 473 Introduction to Constitutional Law (3)

The role of the courts, the presidency, Congress and the states within the U.S. constitutional system. Topics include judicial review, presidential impoundment and impeachment, presidential foreign and military powers, regulation of the economy and public morals, and congressional investigations.

## 474 Civil Liberties (3)

Prerequisite: Political Science 375 or consent of instructor. Political analysis of case studies in constitutional rights and liberties with particular attention to relationships between the individual and government under the Bill of Rights and the 14th Amendment. Topics include economic regulation, criminal justice, privacy, gender and racial discrimination.

# 475 Administrative Law (3)

Prerequisite: Political Science 320 or 375 or consent of instructor. Law as it affects public officials and agencies in their relations with private citizens and the business community. Case materials and regulatory practices.

#### 476 International Law (3)

Prerequisite: Political Science 100. Introduces the fundamentals, or building blocks of international law and covers other selected topics that are traditionally identified as part of public international law.

# 478 Urban Planning Principles (3)

(Same as Geography 478)

# 481 Religion and Politics in the American Experience (3)

(Same as Religious Studies 481)

# 484 Urban Planning Methods (3)

(Same as Geography 484)

## 485 Women and Politics (3)

Prerequisite: Political Science 100. The changing political environment and women's role in elected, appointed and other public agencies; issues of particular concern to women, including ifamily issues, comparable worth and other economic issues and political participation.

# 492 Prelaw Internship (3)

Prerequisite: Political Science 100.

Designed to acquaint students with the legal profession. A supervised working commitment of eight hours weekly with an assigned individual or organization.

## 494 Honors Tutorial in Politics (1)

Prerequisites: senior standing and admission to Honors in Political Science. This is the core course for the Honors in Political Science program. Attendance at presentations by political scientists and critiques thereof. The culminating research for the Honors work will be presented in the tutorial.

# 497 Internship in Public Administration (3)

Prerequisites: Political Science 320 or 509 Students work 12-20 hours per week as supervised interns in a public agency. Supervision by the faculty and cooperating agency. In addition, a weekly seminar.

# 498 Internship in Politics (3)

Prerequisites: political science concentration and consent of instructor. Students work 8-12 hours per week with elected officials or candidates for elective office. Individual supervision by the faculty and cooperating individuals. Interns meet with instructor by arrangement. May be repeated for credit.

## 499 Independent Study (1-3)

Prerequisite: open to advanced students in political science with consent of department chair.

# 509 Administrative Organization and Process (3)

Prerequisite: consent of instructor. For graduate students in public administration who have not had an introductory course in public administration. Organizational theory and practice, decision making, systems analysis, performance evaluation and administrative improvement.

# 511 Seminar in American Politics (3)

Prerequisite: consent of instructor. The political process in the United States.

## 519 State and Local Government (3)

The structure, processes, functions and interrelationships of state and local governments in American society. State, county, municipal and special district government in California as compared with other states.

# 521 Seminar in Public Administration Theory (3)

Prerequisite: admission to the M.P.A. program. The concepts, models and ideologies of public administration within the larger political system. Course restricted to students in their final six units of graduate work.

# 522 Seminar in Public Personnel Administration (3)

Prerequisites: a course in basic statistics and Political Science 320 or 509. Topics in public personnel administration.

# 523 Administrative Research and Analysis (3)

Prerequisites: a course in basic statistics and Political Science 320 or 509. Conceptual methods employed in administrative research and analysis: Organization and procedure of surveys, performance evaluation, social impact assessment, computer data analysis and report writing.

# 525 Seminar in Metropolitan Area Government (3)

Prerequisites: a course in basic statistics and Political Science 320 or 509. Political and policy issues facing metropolitan America, and the capacity of governmental institutions to handle urban problems.

#### 526 Seminar in Administrative Behavior (3)

Prerequisites: a course in basic statistics and Political Science 320 or 509.

Management oriented analysis of organizational behavior. Treatment of decision making, leadership, communication, group dynamics and ethical aspects of organization.

# 528 Seminar in Public Administration and Policy (3)

Prerequisites: Political Science 320 or 509. Interplay between public policy and program administration in federal government. Discussion of administratorsí role in policy development, administrative discretion in implementing policy, use of political resources by administrators.

# 529 Seminar in Public Management Analysis (3)

Prerequisite: Political Science 523.

Application of quantitative techniques to management and planning of public organizations. Topics include network analysis, capacity management, management information systems, productivity measurement, forecasting, cost-benefit analysis, simulation and marketing.

## 530 Seminar in Cross-National Politics (3)

Prerequisite: consent of instructor. The integration of international relations and comparative politics, emphasizing the interdependence of nations and non-state actors in the world political system.

# 540 Seminar Readings in Political Philosophy (3)

Prerequisite: undergraduate preparation in political theory or philosophy. This course examines the foundations of contemporary political science through readings in the classics of political philosophy.

# 541 Seminar in Contemporary Political Theory (3)

Analysis of contemporary trends in the study of politics. Emphasis on behavioral political science, criticisms of it and current empirical approaches to the study of politics.

# 571 Seminar in Public Finance (3)

Prerequisite: Political Science 509.

Surveys state and local budgeting and taxes.

Teaches local financial management and cost benefit analysis. Emphasis on local government in southern California.

# 572 Seminar in Public Sector Human Resource Management (3)

Prerequisites: Political Science 509 and graduate standing. M.P.A. students who have taken Political Science 422 for credit on study plan may not also take this course as part of study plan. Examines the political and legal environments of public personnel management, the general and career civil services and political appointment system and introduces the students to such personnel functions as selection, position classification, performance evaluation and compensation.

# 580 Emergency Management in Public Administration (3)

Prerequisites: Political Science 509 or consent of instructor. A comprehensive review of the state-of-the-art in prevention, warning, evacuation, rescue and recovery systems. Covers the development of public policy relating to land use planning, recovery and issues of liability; intergovernmental relations and effective planning.

# 590T Selected Topics in Political Science (3)

Prerequisite: graduate standing. A detailed examination of a selected new or developing area of political science. Emphasis will be both on the relevant literature and on the preparation and presentation of research papers. May be repeated for credit when covering a different topic.

# 597 Project (3)

Prerequisite: consent of instructor.

# 598 Thesis (3-6)

Prerequisite: consent of instructor.

# 599 Independent Graduate Research (1-3)

Prerequisite: consent of department chair. To be taken only after or concurrent with the completion of the required 15 units of graduate seminars.

# psychology

# INTRODUCTION

Psychology is a science that has as its central theme the study of behavior. Psychology involves studying about how we interact with one another and our environment. Psychology is practical; it is concerned with improving the quality of life. In order to achieve these ends psychologists work in a broad range of research and applied settings. The psychology major is designed to provide each student with a comprehensive overview of the major fields of psychology.

ogy and methods used in psychological research. The major is also designed to assist the student in selecting elective courses which can form a concentration in an area of the student's interest. These specialty areas might include clinical/commu-



nity, social, developmental/child/aging, industrial/organizational, learning/cognitive/aging, biopsychology/health psychology, and legal psychology. The major provides a basis for careers in a variety of psychology related occupations such as mental health agencies, hospitals, teaching, business and public organizations. The major also prepares students for graduate training in fields such as clinical psychology; marriage, family and child counseling; teaching; social work; law; business and management; and public administration. The Psychology Department has its own web pages (HYPERLINK http://psych.fullerton.edu http://psych.fullerton.edu) to introduce you to faculty members, describe courses, and answer your questions. You may also call the Psychology Department at (714) 278-3514.

All students who declare psychology as their major should meet with one of the undergraduate advisement coordinators (Humanities Room 525B, (714)278-3102) during their first semester to develop a study plan. Students should also obtain a copy of the Psychology Department Student Handbook from the department office. Early consultation with an adviser is especially important for those interested in pursuing graduate training, careers in psychology or related fields, teaching credentials or a double major or minor.

Community College Transfer Students: A maximum of nine lower division units of psychology courses may be applied toward the 39 units required for the psychology major. The nine units must fit the course description requirements listed in this catalog for Psych 101, 201 and 202. Additional lower-division units taken in psychology at a community college and approved by the university may be used for university credit for graduation; no course may be counted to satisfy both major requirements and General Education requirements (e.g., Psychology 101 cannot be used to fulfill the General Education Introduction to Social Sciences requirement, and a statistics course used to satisfy the General Education Mathematics requirement cannot be used to satisfy the major requirement of Psychology 201).

## DEPARTMENT CHAIR:

David Perkins

#### **DEPARTMENT OFFICE:**

Humanities 830M

#### ADVISEMENT OFFICE:

Humanities 525B

# OFFICE OF GRADUATE DEGREES AND UNDERGRADUATE PROGRAMS:

Humanities 830L

#### **PROGRAMS OFFERED**

Bachelor of Arts in Psychology Minor in Psychology Master of Arts in Psychology Master of Science in Psychology

## **FACULTY**

Frank Bagrash, Kay Bathurst, Michael Birnbaum, Chris Cozby, Melinda Blackman, Jennifer Devenport,Peter Ebersole, Allen Gottfried, Jinni Harrigan, Daniel Kee, Richard Lippa, Jack Mearns, Lisa Mori, Douglas Navarick, David Perkins, Nancy Segal, William Smith, Duana Welch, Margaret White, Stanley Woll

# **ADVISERS**

Undergraduate: Jack Mearns, Margaret White

MA Coordinator: Kay Bathurst MS Coordinator: Jack Mearns, Lisa Mori

#### **CREDENTIAL INFORMATION**

Early academic planning is particularly important for students seeking this credential objective. Plan on visiting the Center for Careers in Teaching (University Hall 178, (714) 278-7130), as soon as possible for guidance in planning your courses while you are still an undergraduate).

# **BACHELOR OF ARTS IN PSYCHOLOGY**

#### Lower Division (9 units required)

Psychology 101 Introductory Psychology (3)
Psychology 201 Elementary Statistics (3)
Psychology 202 Research Methods in
Psychology (3)

# Upper Division (30 units required)

Required Courses (18 units)

One of the following four laboratory courses (3 units):

Psychology 303 Sensation and Perception (3)

Psychology 304 Comparative Animal Behavior (3)

Psychology 305 Information Processing (3)

Psychology 306 Physiological Psychology (3)

One of the following three courses (3 units):

Psychology 331 Psychology of Personality (3)

Psychology 351 Social Psychology (3)

Psychology 361 Developmental Psychology (3)

Each of the following four courses:

Psychology 300 Computer Applications in Psychology (3)

Psychology 302 Learning and Memory (3)

Psychology 408 History of Psychology (3)

Psychology 461 Psychological Testing (3)

## Elective Courses (12 units)

A full range of options is available for the 12 units of psychology upper-division (300/400 level) electives. These courses should form an area of concentration for students and should be selected in consultation with a psychology adviser.

# Special Requirements

Each course counted toward the major must be completed with a grade of C or higher. No more than a total of three units of either independent study or independent research (Psychology 498 or 499) may be applied toward the major. No more than three units of internship (Psychology 495)

may be applied toward the major. Student-to-Student Tutorials (Psychology 496) may not be used to meet the 12 units of upper-division psychology electives, but may be counted toward units to graduate from the university. A minimum of 18 units counted toward the psychology major must have been completed at CSUF.

#### MINOR IN PSYCHOLOGY

#### Lower Division (6 units)

Psychology 101 Introductory Psychology (3)
Psychology 202 Research Methods in
Psychology (3)

#### Upper Division (6 units)

One of the following courses (3 units):

Psychology 302 Learning and Memory (3)

Psychology 303 Sensation and Perception (3)

Psychology 304 Comparative Animal Behavior (3)

Psychology 305 Information Processing (3)

Psychology 306 Physiological Psychology (3)

Psychology 363 Experimental Child Psychology (3)

One of the following courses (3 units):

Psychology 331 Psychology of Personality (3)

Psychology 341 Abnormal Psychology (3)

Psychology 351 Social Psychology (3)

Psychology 361 Developmental Psychology (3)

### Electives (9 units)

Students completing the minor may choose 9 units of upper-division psychology courses or 6 units of upper-division courses and Psychology 201 Elementary Statistics.

# **Special Requirements**

The special requirements that are listed under the major apply to the minor as well. A minimum of 12 units counted toward the psychology minor must have been completed at CSUF.

### Other Minors

The Psychology Department is a participant in minors in gerontology and women's studies. Some course work may be applied to both the Psychology major and the minor. Twelve units in a minor must be distinct and different from those in the Psychology major, so, in a 21-unit minor, nine units of Psychology may be double counted to satisfy requirements in both the major and the minor.

#### **MASTER OF ARTS IN PSYCHOLOGY**

The degree program provides advanced course work and research training in core areas of psychology. Completion of the M.A. can facilitate application to doctoral programs and provides skills important to careers in education, the health professions, and industry.

# Admission to Graduate Standing: Classified

An applicant who meets the requirements listed below, in conjunction with the development of an approved study plan, may be evaluated for classified graduate standing.

- A. Satisfaction of the general prerequisites for graduate studies, which includes a baccalaureate degree from a regionally accredited institution and a grade point average of at least 2.5 in the last 60 semester units attempted.
- B. A minimum 2.5 overall grade-point average and a 3.0 average in psychology coursework. Applicants are rarely admitted with less than a 3.0 overall gradepoint average.
- C. Approved lower-division equivalent courses in psychology:
  - Introductory Psychology (e.g., Psychology 101)
  - 2. Elementary Statistics (e.g., Psychology 201)
  - 3. Research Methods in Psychology (e.g., Psychology 202)
- D. Approved upper-division equivalent coursework including classes in history of psychology (e.g., Psychology 408) and advanced statistics (e.g., Psychology 465). Also four additional psychology classes completed from the areas below; classes must be from four different areas and one must be a lab class:
  - 1. Learning and Memory
  - 2. Cognition/Information Processing
  - 3. Sensation & Perception/Physiological/ Biological
  - 4. Social/Personality
  - 5. Abnormal/Clinical
  - 6. Developmental
- E. Satisfactory performance in the General (Verbal, Quantitative, Analytical) and Advanced Subject/Psychology tests of the Graduate Record Examination (GRE).

- F. Three satisfactory letters of recommendation. One must be from a psychology professor.
- G. Meet the University's Writing Proficiency Requirement.
- H. Research experience recommended.

Invitation to the program is based on competitive evaluation of qualifications and is at the sole discretion of the Psychology Depart-ment's Graduate Studies Committee. New students are admitted to the Master of Arts program in the fall only. Both the university and department applications must be completed on time for full consideration. Application deadline for the return of all materials is March 1 for the fall semester. Departmental forms may be obtained from the Graduate Office of the Psychology Department.

# Admissions to Graduate Standing: Conditionally Classified

It may be possible for an applicant with minimal deficiencies in prerequisite requirements, but who is otherwise highly qualified, to be admitted conditionally to the program. Provisions for the removal of these deficiencies would be outlined as part of the conditional acceptance. When the deficiencies have been successfully removed, a regular invitation to join the program as a classified graduate student may be offered after review by the department's Graduate Studies Committee.

## Study Plan

The Master of Arts in Psychology requires a minimum of 30 units of approved graduate work, including the completion and acceptance by the department of a written thesis that has been defended orally.

Each student, in consultation with the graduate coordinator and a faculty mentor, will develop a program of study. This program will be outlined on an official university study plan form and submitted to the department's Graduate Studies Committee for review and approval.

Requirements for the M.A. in Psychology include the following 3-unit courses:

500-Level Courses (15 units)

Psychology 500 Issues and Perspectives in Psychological Research

Psychology 599 Independent Graduate Research

Psychology 510 Experimental Design

Two 500 topics from:

Psychology 520T Advanced Topics in Psychological Research

400-level Content Courses (9-12 units)

Three 400-level psychology classes must be completed from the following categories:\*

Experimental/Cognitive

Social/Personality/Industrial

Clinical/Community

Developmental

Quantitative

Sensory Processes/Physiological/Biological

Thesis (3-6 units)

Psychology 598 Thesis Research (3 units)

OR Psychology 598 Thesis Research (3/3 units)

\*A list of qualifying classes for each category is available from the psychology graduate office. 500-level classes in psychology may be substituted with permission of the program coordinator.

Students must complete Psychology 500 within their first semester in the program. To be advanced to candidacy for the M.A. Degree, students must have received a grade of B or better in all study plan classes and maintain a 3.0 grade-point average overall. A successful oral defense of the thesis is also required.

Following university regulations, a maximum of five years is normally allowed for completion of course work and other requirements.

For further details, contact the Graduate Program office in the Department of Psychology.

# MASTER OF SCIENCE IN CLINICAL PSYCHOLOGY

The Master of Science program combines training in both scientific and applied areas of clinical psychology. It is based on the scientist-practitioner model and also provides preparation for professional work in a variety of settings. It also prepares the student for doctoral programs in both academic and professional schools in clinical psychology. The program requires a thesis and provides supervised fieldwork experience. Completion of the coursework with all indicated electives prepares the student for Marriage, Family, Child Counseling (MFT) intern registration. Additional coursework must be taken to

qualify the student for the MFT license as it is currently defined.

# Admission to Graduate Standing: Classified

An applicant who meets the following requirements may be considered for classified graduate standing upon development of an approved study plan:

- A . Satisfaction of the general prerequisites for graduate work which include a baccalaureate degree from a regionally accredited institution and a grade-point average of at least 2,5 in the last 60 semester units attempted (see section of this catalog on Graduate Admissions for complete statement and procedures);
- B. A minimum 2.5 overall grade point average and a 3.0 average in psychology.
   Applicants are rarely admitted with less than a 3.0 overall grade-point average.
- C. A major in psychology\* or approved equivalent course work of 33 units involving the following courses:

Lower Division (9 units)

Psychology 101 Introductory Psychology
Psychology 201 Elementary Statistics
Psychology 202 Research Methods in
Psychology\*

Twenty-two points, plus triple-word-score, plus fifty points for using all my letters. Game's over. I'm outta here.Upper Division (24 units)

Psychology 302 Learning and Memory

Psychology 303 Sensation and Perception

OR Psychology 304 Comparative Animal Behavior

OR Psychology 305 Information Processing

OR Psychology 306 Physiological Psychology

Psychology 331 Psychology of Personality

OR Psychology 351 Social Psychology OR Psychology 361 Developmental

Psychology 341 Abnormal Psychology\*

Psychology

Psychology 461 Psychological Testing\*

Psychology 465 Advanced Psychological Statistics\*

Psychology 495 Field Placement in Psychology

OR an elective if you havequalifying experience\*

An upper-division psychology elective

\*Psychology majors are required to ensure that their coursework includes research methods, abnormal psychology, psychological testing, advanced statistics, and supervised experience.

- D. Performance in the General and Advanced Psychology Tests of the Graduate Record Examination;
- E. Three satisfactory letters of recommenda-
- F. Passing the university's EWP (Examination in Writing Proficiency).
- G. Previous clinical experience, paid or volunteer research experience, and an interview of the finalists are required.

New students are admitted to the Master of Science program in the fall. Those to be admitted will be selected in the spring from the most qualified applicants at the sole discretion of the department's Graduate Studies Committee. An interview of the finalists is required. In addition to the university application, a departmental application form, obtainable by mail from the Psychology Department's graduate office, must be completed and returned to that office. The application deadline for the return of all materials including GRE scores is for fall March 1 semester entry.

# Admission to Graduate Standing: Conditionally Classified

It may be possible for applicants who have minimal deficiencies in prerequisite requirements, as detailed above, but who are otherwise highly qualified, to be admitted in conditionally classified graduate standing, with provisions made for removal of deficiencies prior to the granting of classified standing. For further information, consult the graduate program adviser.

# Study Plan

The Master of Science in Psychology requires 49 units of approved graduate work, including the completion and acceptance by the department of a written thesis which has been defended orally.

Students in consultation with their program adviser shall develop a study plan which will be submitted to the Graduate Studies Committee of the Department of Psychology for approval. To be advanced to candidacy, students must receive a grade of B or better on all study plan courses.

Course Requirements

- I. Core Courses (10 units)
  - Psychology 501 Professional and Legal Issues in Clinical Psychology (3)\*\*
  - Psychology 520T Advanced Topics in Psychological Research (3)
  - Psychology 510 Experimental Design (3)
    Psychology 599 Independent
    Graduate Research (1)
- II. Clinical Courses (24 units)
  - Psychology 545 Advanced Psychopathology (3)
  - Psychology 547 Theories of Psychological Intervention (3)\*\*
  - Psychology 548 Psychotherapy Techniques (3)\*\*
  - Psychology 549 Marriage, Family and Child Therapy (3)\*\*
  - Psychology 560 Child and Adolescent
    Treatment (3)\*\*
  - Psychology 569 Cross Cultural Psychology (3)\*\*
  - Psychology 594A Fieldwork (3)\*\*
    Psychology 594B Fieldwork (3)\*\*
- III. Electives (9 units)

Elective coursework must be approved by the Graduate Program Coordinator and include a course in psychological assessment.

- IV. Thesis (6 units)
  - Psychology 598 Thesis Research (6)
- \*\* Required by the Board of Behavorial Science for MFT licensure. Please see the Program Coordinator for additional courses necessary for licensure.

Students must complete the Psychology 501 research course during their first semester in the program. The program involves intensive fieldwork experience in clinical settings, emphasizing careful supervision which includes weekly meetings with both Psychology Department faculty and off-campus fieldwork supervisors.

The Psychology Department's mentor program facilitates students' early involvement in research, helps students develop their thesis topic, and provides academic and career counseling in areas of emphasis in psychology. New students, in consultation with the coordinator, select a mentor prior to their second semester in the program. Students may change mentors at any time by obtaining

the agreement of the new mentor, informing the current mentor, and consulting with the Graduate Coordinator. It is anticipated that students i mentor will serve as their thesis adviser in the second year. However, students are free to select a different person for their adviser.

It should be noted that successful completion of the course work is not sufficient to permit continuation in the program. In addition, faculty judgment must be satisfied with respect to the student's effectiveness as well as professional and ethical behavior in dealing with potential clients. Continuation in the program is contingent upon satisfactory performance in all aspects of the program as judged by the Graduate Studies Committee.

### **PSYCHOLOGY COURSES**

# 101 Introductory Psychology (3)

Basic concepts, problems, and methods in psychology. Perception, learning, measurement, cognitive processes, development, motivation, personality, abnormal behavior, physiological and social psychology. It is recommended that students satisfy the ELM requirement before enrolling. (CAN PSY 2)

#### 110 Reasoning and Problem Solving (3)

The nature of critical thinking, models and strategies; common fallacies of reasoning, self-regulation in the thinking process; application of critical thinking to specific areas.

# 201 Elementary Statistics (3)

Prerequisites: Psychology 101 and completed ELM requirement. Descriptive statistics, probability, hypothesis testing (t, chiquare, F), sampling distributions of mean and variance, correlation and regression, analysis of variance (one-way, and two-way, factorial design), interpretation of data.

# 202 Research Methods in Psychology (3)

Prerequisites: Psychology 101 and Psychology 201 and completed ELM requirement; concurrent enrollment in Psychology 201 may be allowed by consent of instructor. The fundamentals of psychological research methods. Participation in conducting experiments, analyzing data, interpreting results, and writing research reports. (2 hours lecture, 3 hours laboratory)

# 300 Computer Applications in Psychology (3)

Prerequisites: completion of general education math requirement and prior completion or concurrent enrollment in Psychology 201 and 202. General introduction to the use of computers in psychology. Selection and use of application programs in research, statistics and testing will be emphasized.

# 302 Learning and Memory (3)

Prerequisites: Psychology 101, 201, 202, or consent of instructor. Theoretical and experimental investigations in learning, memory, thinking, problem solving and motivation. Written research reports required. (2 hours lecture, 3 hours laboratory)

## 303 Sensation and Perception (3)

Prerequisites: Psychology 101, 201, 202 or consent of instructor. Theoretical and experimental investigations in sensory and perceptual processes, including vision and audition. (2 hours lecture, 3 hours laboratory)

#### 304 Comparative Animal Behavior (3)

Prerequisites: Psychology 101, 201, 202 or consent of instructor. Theoretical and experimental investigations in animal behavior, including humans. The interspecies comparisons of behavior and sensory, motor, endocrine and neural structures. (2 hours lecture, 3 hours laboratory; one or more field trips required)

# 305 Information Processing (3)

Prerequisites: Psychology 101, 201, 202 or consent of instructor. Theoretical and experimental investigations of the representation, structure, and utilization of information in humans. (2 hours lecture, 3 hours laboratory)

# 306 Biopsychology (3)

Prerequisite: Psychology 202 or Biological Science 101 or equivalent. Anatomy and physiology of the nervous system, role of neural and humoral agents in complex behavior. Relation between behavioral and biological processes. (2 hours lecture, 3 hours laboratory)

## 310 Psychology of Women (3)

Prerequisite: Psychology 101. Survey of theories, research and implications for the psychological study of gender differences and similarities, particularly as pertains to the psychological characteristics and problems of women.

## 311 Educational Psychology (3)

Prerequisite: Psychology 101. Application of psychological research and theory to educational processes, including learning, motivation, individual differences, teaching methods and evaluation.

# 312 The Psychology of Human Sexual Behavior (3)

Prerequisite: Psychology 101. Topics in human sexual behavior integrating sexuality as biological, social, clinical, and developmental. Surveys and statistics of sexual behavior, sexual orientation, gender identity, sexual variations, causes and treatment of sexual dysfunctions. Legal, moral, and social issues.

# 331 Psychology of Personality (3)

Prerequisite: Psychology 101. Broad survey of research, theory and assessment techniques in the area of personality.

# 341 Abnormal Psychology (3)

Prerequisite: Psychology 101. Symptoms, causes, treatment and prevention of mental problems; the anxiety disorders, the personality disorders, psychophysiological disorders, psychoses, substance use disorders, sexual disorders and organic disorders.

# 350 Environmental Psychology (3)

Prerequisite: Psychology 101 or consent of instructor. Theory, research and method in the study of behavior-environment relationships. The influence of such variables as population density and urban design on human behavior.

# 351 Social Psychology (3)

Prerequisite: Psychology 101. Phenomena related to social behavior and social influences on behavior. Topics include social perception and cognition, attitudes and attitude change, attraction, altruism, aggression, interpersonal influence, and group processes.

# 361 Developmental Psychology (3)

Prerequisite: Psychology 101. Psychological and physical development. Theories, methods and research findings regarding the development of perception, cognition, learning, personality and social behavior.

# 362 Psychology of Aging (3)

Prerequisite: Psychology 101. Characteristics of humans during the adult years. Topics include physical, intellectual, cognitive, personal, social and psychological development, vocational and family changes, retirement and death.

# 363 Experimental Child Psychology (3)

Prerequisites: Psychology 101 and two of the following: Psychology 361, Child Development 312, 320, 325 or 330. Research methodology in developmental psychology. Critical examination of empirical studies. Design and execution of an empirical investigation. (2 hours lecture, 3 hours laboratory).

# 364 Intelligence: A Life-span Perspective (3)

Prerequisite: Psychology 101 or consent of instructor. Nature, determinants and consequences of intelligence. Sociopolitical aspects of the testing movement. Stability, change and prediction of IQ, social and biological influences, educational and occupational consequences, genetic vs. environmental controversy.

# 391 Industrial/Organizational Psychology (3)

Prerequisite: Psychology 101. Traditional and current psycho-logical principles and techniques in industrial and business settings. Selection, placement, training, work motivation, human factors, environmental influences, leadership, work stress, organizational communication, problems of people at work, organizational development and consumer behavior.

# 400 Advanced Research Issues in Psychology (1)

Prerequisites: Psychology 201 and 202 and consent of instructor. Topics selected from current theory and research developments in psychology. Study of professional issues in psychology including methodological and ethical procedures in the conduct of research and practical applications of psychological research theories and methods. Usually taken in conjunction with Psychology 498, 499, or 599 (Independent Study/Research). May be repeated for credit.

#### 408 History of Psychology (3)

Prerequisite: Completion of nine units of upper division psychology courses. The development of psychology from early times to the present; major traditions and conceptual issues.

# 415 Cognitive Processes (3)

Prerequisites: Psychology 302, or 303, or 305. Theory and research in such topics as attention, pattern recognition, memory, language, decision making, judgment, reasoning, and problem solving.

#### 416 Everyday Cognition (3)

Prerequisites: either Psychology 302, 305, or 415. Theory and research on memory, problem- solving, and decision-making in real world settings and with everyday materials. Topics include memory for people, places, and events, autobiographical memory; eye witness memory; problem-solving in everyday activities; and applied decision-making (e.g., in legal and clinical settings).

# 417 Psycholinguistics (3)

Prerequisite: six hours of upper-division work in psychology or linguistics, or consent of the instructor. Theory and research on the psychological processes that make possible language acquisition and use. Three major concerns are: comprehension of spoken and written language, speech production, and language acquisition. (Same as Linguistics 417)

# 431 Theories of Personality (3)

Prerequisite: Psychology 331. Traditional and contemporary theories of personality, including psychoanalytic, humanistic-existential, behavioral, trait and social interaction approaches.

# 454 Social Cognition (3)

Prerequisite: Psychology 351 or 415. Theory and research on the processing and representation of social information. Topics include impression formation, stereotyping, attribution theory, the self, political cognition, and developmental issues.

#### 461 Psychological Testing (3)

Prerequisite: Psychology 201 or equivalent. Intelligence, aptitude, interest, and personality testing. Theory, construction, evaluation, interpretation and uses of psychological tests.

# 464 Advanced Developmental Psychology (3)

Prerequisites: Psychology 361 or Child Development 312 and consent of Instructor. Review and analysis of major theoretical and empirical issues in child developmental psychology.

# 465 Advanced Psychological Statistics (3)

Prerequisite: Psychology 201. General linear model, regression, analysis of variance techniques and applications to research design and evaluation of data.

# 466 Advanced Social Science Computer Applications (3)

Prerequisites: Psychology 201 and 300 or equivalent. Advanced computer applications with emphasis on data analysis, graphing, data bases, and on-line experimentation and data collection.

# 467 Multivariate Statistics for Psychology (3)

Prerequisite: Psychology 465 or consent of instructor. Bivariate and multivariate regression, multivariate analysis of variance, discriminant analysis, factor analysis, structural equations, and applications to psychological research.

# 472 Community Psychology (3)

Prerequisites: Psychology 101, 341, or consent of instructor. A critical analysis of theory and research in community psychology, including a survey of (a) prevention programs, (b) service delivery aspects, and (c) methodology of program evaluation.

# 473 Sleep, Dreams, and Behavior (3)

Prerequisites: Psychology 306, 331, 341 or consent of instructor. The role of sleep and dreams in controlling awake behavior. Course topics include historical views/theories, the neurobiology of sleep and dreams, sleepwake scehdules, sleep disorders, and their relationships to cognition, personality, and psychopathology.

# 474 Health Psychology (3)

Prerequisites: Psychology 101, 341 and at least nine units of upper-division course work in psychology; Psychology 306 is recommended. Role of psychology in prediction, prevention, and treatment of medical disorders, including stress and illness, psychoneuroimmunology, psychological aspects of chronic illnesses, behavioral medicine, physician-patient dynamics.

#### 475 Psychopharmacology (3)

Prerequisite: Psychology 306 and 341 or 15 units of biological science. Basic principles underlying the use of drugs and related substances to modify experience and behavior. Psychological, medical and social potentialities and limitations of these techniques.

# 476 Development Psychopathology and Assessment (3)

Prerequisite: Psychology 341 or 361 or consent of instructor. Psychopathology from a developmental perspective. Pathogenic influences during childhood. Causes, classification, incidence and research on behavior disorders and problems in childhood.

Assessment approaches and techniques.

# 481 Survey of Clinical Psychology (3)

Prerequisites: Psychology 331, 341 or consent of instructor. Methods, diagnosis, therapeutic techniques, research, educational requirements, professional requirements, ethics.

#### 495 Field Placement in Psychology (3)

Prerequisites: 12 units of psychology and consent of instructor. Supervised experience in an off-campus location. Class meetings will be spent discussing the fieldwork experience both from a practical and a theoretical standpoint. Application forms must be completed prior to enrollment. No more than three units of credit toward the major.

#### 496 Student-to-Student Tutorials (1-3)

Consult iStudent-to-Student Tutorialst in this catalog for more complete course descriptions.

#### 498 Directed Lab Research (3)

Prerequisites: completion of one upperdivision laboratory course in psychology and consent of instructor. Study plan must be approved by university census date. Individual laboratory investigation under direction of a faculty member. No more than three units of credit toward the major.

## 499 Independent Study (1-3)

Prerequisites: completion of at least one upper-division laboratory course in psychology and consent of instructor. Study plan must be approved by university census date. Individual library study under direction of a faculty member. No more than three units of credit toward the major.

# 500 Issues and Perspectives in Psychological Research (3)

Prerequisite: Admission to the M.A. psychology graduate program and consent of instructor. Current theoretical, professional, and methodological issues in psychology.

# 501 Professional and Legal Issuesin Clinical Psychology (3)

Prerequisites: Admission to the M.A. graduate program or consent of instructor. Introduction to methodological, ethical, and legal issues in the field of Clinical Psychology.

### 510 Experimental Design (3)

Prerequisites: Psychology 201, 465 and admission to a psychology graduate program or consent of instructor. Principles and methods of planning and carrying out systematic investigations on the behavior of complex organisms, interdependence of experimental design and statistical evaluation of results. Practice in formulation of testable hypotheses.

### 520T Seminar: Advanced Topics in Psychological Research (3)

Prerequisite: Admission to a psychology graduate program or consent of instructor.

Content of seminar may vary each semester.

A topics is selected for in-depth study from one or more specialty areas within the field of psychology. May be repeated for credit.

### 543 Advanced Lifespan Development (3)

Prerequisite: Admission to the M.S. Clinical program or consent of the instructor. In-depth study of advanced lifespan development, theory and research.

### 545 Advanced Psychopathology (3)

Prerequisites: Psychology 341 or equivalent and admission to either the Master of Science Clinical program or the Master of Arts Psychology program or consent of instructor. In-depth study of diagnosis, etiology theories, research and prevention of adult and child psychopathology.

### 547 Theories of Psychological Intervention (3)

Prerequisite: Admission to Master of Science in Clinical program or consent of instructor. In-depth coverage of psychotherapy. Principle theoretical approaches covered are: Psychodynamic, humanistic, and behavioral/cognitive behavioral.

### 548 Psychotherapy Techniques (3)

Prerequisite: admission to the M.S.
Clinical Program or consent of the instructor.
A skills course in conducting diagnostic interviews and basic therapeutic techniques.
Role playing and video feedback will play a central role in course. (2 hours lecture, 3 hours laboratory)

### 549 Marriage, Family and Child Therapy (3)

Prerequisite: satisfactory completion of the first semester of the Master of Science
Psychology program. Marriage, family and child therapy: theory, techniques and research.

### 560 Child and Adolescent Treatment (3)

Prerequisite: completion of first year in M.S. Clinical Program or consent of instructor. Specific therapy techniques, including behavioral, and general approaches to the treatment of children and adolescents.

### 568 Substance Abuse (1)

Prerequisite: admission to the graduate program or consent of instructor. The impact of alcoholism and drug abuse on the individual, family and community, clinical skills in the diagnosis and treatment of substance abuse, and research on diagnosis and outcome.

### 569 Cross Cultural Psychology (3)

Prerequisites: completion of Psychology 545 and Psychology 547 or consent of instructor. An in-depth study of cross-cultural issues as they apply to clinical psychology, specifically psychotherapy. Practical, research and theoretical issues will be examined.

### 594A,B Fieldwork (3,3)

Prerequisite: satisfactory completion of first year's work in the Master of Science in Clinical program. Supervised clinical work in mental health agencies. (Minimum of 12 hours field experience per week.)

### 598 Thesis Research (3 or 6)

Prerequisites: formal advancement to candidacy and consent of instructor. Development of a proposal for a major piece of empirical research, execution of the study, analysis of the results and writing of a thesis.

### 599 Independent Graduate Research (1-3)

Prerequisites: admission to a psychology graduate program and consent of instructor. Empirical research in a selected area of psychology. Designed, conducted and written by the student with the collaboration of a member of the faculty. May be repeated for credit.

# reading

### **UNDERGRADUATE READING DEVELOPMENT COURSES**

Lower division courses in reading (Reading 105, 201, 202, and 290), an upper-division course (Reading 320), and a remedial course (Reading 099) are designed to assist students in developing and utilizing a problem solving approach in the critical and creative reading and thinking processes required for efficient university learning.

### **PROGRAM IN READING**

**DIVISION OF EDUCATION** 

### **DIVISION CHAIR:**

Vacant

### **PROGRAM COORDINATOR:**

Ashley Bishop

### PROGRAM OFFICE:

**Education Classroom 379** 

### **PROGRAMS OFFERED**

Master of Science in Education

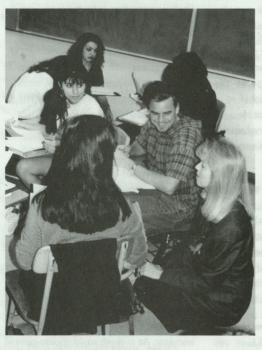
Concentration in Reading

Reading/Language Arts Specialist

Credential

### FACULTY

Ashley Bishop, Antonia Chambers, Norma Inabinette, JoAnn Carter-Wells, Brenda Spencer



## READING/LANGUAGE ARTS SPECIALIST CREDENTIAL

The California Commission on Teacher Credentialing has granted approval to the Reading Program to offer a reading/language arts specialist credential program.

Persons wishing to earn an advanced Reading/Language Arts Specialist Credential must make formal application to the university indicating the specific specialist credential program desired. In addition, applicants must meet the following requirements:

- 1. Have completed a bachelor's degree;
- 2. Have earned a grade-point average of at least 2.5 in the last 60 undergraduate units completed and at least 3.0 in graduate units completed;
- 3. Have possession of a multiple subject or single subject cre dential or another valid California standard teaching credential; and
- 4. Have successfully taught in a classroom setting for a minimum of three years in any grades from preschool through adult. This experience cannot include student teaching, intern teaching, or teaching while holding an emergency credential or permit.

Advisement is available to any student seeking a Reading/Language Arts Specialist Credential. New students will be assigned an adviser upon acceptance in the program. Prior to their first semester in the program, students should meet with an adviser to develop a credential study plan.

For further information, please contact the Program office, Education Classroom Building, Room 379.

### MASTER OF SCIENCE IN EDUCATION (READING)

The program is designed to help qualified individuals gain the technical knowledge and scholarship requisite to becoming reading/language arts specialists. This professional program is based on, and combined with, sound preparation in the liberal arts and sciences. The curriculum proposes an interdisciplinary approach to the preparation of the professional specialist in reading/language arts.

### Admission to Graduate Standing: Conditionally Classified

University requirements include: a baccalaureate from an accredited institution and a gradepoint average of 2.5 in the last 60 semester units attempted (see "Graduate Admissions" section of this catalog for complete statement and procedures). In addition, an applicant must have an approved major, complete an application to the Reading Program and confer with the graduate program adviser to discuss the prerequisites for attaining classified standing.

### Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing upon the development of an approved study plan: successful teaching experience or other approved experience; a grade-point average of 2.5 or better in academic and related work; sufficient background in reading; a satisfactory interview; and four references from school administrators, school supervisors or professors.

### Study Plan

The final adviser-approved program of course work for the degree must include:

Core Courses (10 units)

Ed Elm 511 Survey of Educational Research (3)

Ed Elm 536 Curriculum Theory and Development (3)

Reading 516 Testing and Evaluation of Reading Performance (4)

Concentration Courses (19 units)

Reading 507 Current Trends in Secondary and College Reading Programs (3)

Reading 508 Teaching Reading/Language
Arts in Today's Elementary Schools (3)

Reading 514 Linguistics and Reading (3)

Reading 520 Computers in Reading (2)

Reading 560 Cross-Cultural Approaches to Teaching Reading/Language Arts (2)

Reading 570 Developing Literature-Based Reading/Language Arts Programs (2)

Reading 581 Remediation of Reading Difficulties (4)

Culminating Experience (1)

Reading 595 Advanced Studies (includes comprehensive examination) (1)

OR Reading 597 Project (1)

OR Reading 598 Thesis (1)

For advisement and further information, consult the program graduate adviser.

### **READING COURSES**

### 099 Basic Academic Reading

Through practice which begins at the student's present reading level and evolves toward college level, students will enhance their ability to function in undergraduate classes which require reading.

### 105 Reading Speed and Efficiency (1)

Five week course to develop students' flexible rate of reading and ability to efficiently comprehend and retain text information. Includes pretests, completion of practice exercises, and post evaluation.

### 201 Academic Reading: Analyses and Strategies (3)

Analysis of reading and learning processes, reading interpretation and critical thinking strategies as applied to all types of academic reading, emphasis on integration and synthesis of academic information.

### 202 Vocabulary Cognition and Reading Comprehension (3)

Study and analysis of general and academic vocabularies and their influence on reading comprehension and communication. Emphasis on language knowledge and the development of contextual analysis and word association processes in reading communication.

# 290 Critical Reading as Critical Thinking (3)

Relationship of critical reading to critical thinking. Emphasis on the development of critical thinking skills with application in the interpretation, analysis, criticism and advocacy of ideas encountered in academic readings.

# 340 Fostering Language Growth for Reading Readiness (3)

Prerequisites: Child Development 312, Psychology 361 or equivalent or consent of instructor. Explores function of receptive and expressive language development as they relate to reading readiness in young children.

### 480 The Teaching of Reading (4)

Curriculum and methods in the teaching of reading and language arts in the elementary and secondary schools. Teachers' manuals and guides are introduced and studied. A major focus will be the preparation of reading lessons for classroom settings.

### 501 Assessment of Reading Specialist Competencies (1)

Assessment of competencies of students entering the Reading program in preparation of the Reading Specialist Credential.

### 507 Current Trends in Secondary and College Reading Programs (3)

Current trends in the teaching of secondary and college reading improvement with emphasis on materials, organization and methods of instruction.

# 508 Teaching Reading/Language Arts in Today's Elementary Schools (3)

Current trends in the teaching of elementary reading/language arts. The role of the teacher as a decision-maker in the elementary reading/language arts program.

### 514 Linguistics and Reading (3)

A study of linguistics and its influence on reading materials and instruction. An analysis of trends in linguistics as they relate to the teaching of reading.

### 516 Testing and Evaluation of Reading Performance (4)

Prerequisites: Reading 507, 508, 514 or consent of instructor. A study of the administration, evaluation, and interpretation of individual and group tests related to reading/language arts performance. Course includes in-depth analysis of a problem reader with a study of the effects of linguistic, social, physical, psychological, educational and cultural factors which may influence reading and test performance.

### 520 Computers in Reading (2)

Prerequisites: Reading 507, 508 or equivalent. Exploration of the impact of computers on reading and language arts; investigation of the strengths/limitations and applications of varying types of software for reading/language arts development. Clinic component included.

# 560 Cross-Cultural Approaches to Teaching Reading/Language Arts (2)

Prerequisite: Reading 507 or 508, or consent of instructor or graduate adviser. Theory and research in teaching reading/language arts to students of diverse cultural and linguistic backgrounds. Understanding issues and concepts of various approaches. Using appropriate materials and strategies for teaching literacy skills to diverse groups.

### 570 Developing Literature-Based Reading/Language Arts Programs (2)

Recommended: English 433 and/or 434 or the equivalent. Processes for developing literature-based reading/language arts instructional programs. Emphasis on using literature to promote readiness for reading, independent reading skills, and positive attitudes in students.

### 581 Remediation of Reading Difficulties (4)

Prerequisite: Reading 507, 516 or consent of instructor. Analysis and diagnosis of reading/language arts difficulties. Techniques and methods of prevention and treatment. Individual remediation of student. Primary through secondary.

### 585 Professional Development in Reading/Language Arts (3)

Prerequisite: Seminar in development and evaluation of reading/language arts programs. Training in staff development and interpersonal relations with teachers, parents, consultants, and administrators. Includes writing for publication, grant proposal writing, and other professional responsibilities.

### 595 Advanced Studies (1-3)

Prerequisite: consent of instructor or graduate adviser. Graduate seminars designed to develop competencies in such areas as behavior, teaching strategies, educational technology, program development, communication theory and interpersonal relations related to reading/language arts.

### 597 Project (1-3)

Prerequisite: consent of instructor or graduate adviser. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

### 598 Thesis (1-3)

Prerequisite: consent of instructor or graduate adviser. Individual research with conferences with the instructor, culminating in a thesis.

### 599 Independent Graduate Research (1-3)

Prerequisite: consent of instructor or graduate adviser. Independent inquiry for qualified graduate students.

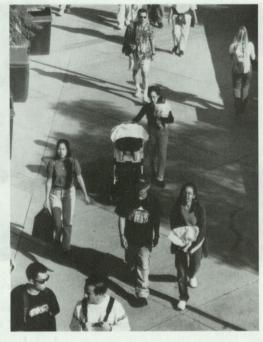
# TUSSIAN AND CHARGE CONTROL OF THE CO

### INTRODUCTION

The Russian and East European Area Studies program is an interdisciplinary program designed for students whose interests and career objectives are in government service, communication, international business or education. The program provides students already majoring in an existing discipline or department (i.e., history, business, biology, etc.) the opportunity to have a second major. In addition, the program fulfills the various cultural objectives common to any liberal arts program.

### BACHELOR OF ARTS IN RUSSIAN AND EAST EUROPEAN AREA STUDIES

To qualify for this major, a student must complete (1) 20 units of Russian language or their equivalent. (2) 24 units of upperdivision Russian area courses from at least four of the following fields: communications, comparative literature, economics, geography, philosophy, political science, history, foreign language, (3) 15 units of upper-division course work in a related discipline to be determined in consultation with a Russian area counselor. Students are encouraged to have these units apply toward a major in a traditional discipline. Since Russian lan-



available in 1997-1999, students must see the program coordinator for language alternatives.

The basic lower-division courses also may be used to meet general educational requirements.

### **RUSSIAN AND EAST EUROPEAN AREA STUDIES COURSES**

All courses within the Russian and East European area studies program originate in other departments within the university. Students should refer to the department originating the course for description.

### Communications

426 Global Media Systems (3)

guage instruction may not be

### Comparative Literature

373 Ninteenth Century Russian Literature (3)

374 Twentieth Century Russian Literature (3)

### Economics

331 Economies in Transition (3)

### PROGRAM COORDINATOR (ACTING):

Roshana Sylvester (History)

### **PROGRAM OFFICE:**

McCarthy Hall 103

### PROGRAM OFFERED

Bachelor of Arts in Russian & East

European Area Studies

### **PROGRAM COUNCIL**

Jane Hipolito (English), Karl Kahrs
(Political Science), Robert Picard
(Communications), Bruce Wright (Political
Science)

Foreign Languages (may not be offered 1995-1997)

Russian 101 Fundamental Russian-A (5)

Russian 102 Fundamental Russian-B (5)

Russian 203 Intermediate Russian-A (5)

Russian 204 Intermediate Russian-B (5)

### Geography

338 Russia and Its Environs (3)

### History

420 The Byzantine Empire (3)

434A Russia to 1890 (3)

434B The Russian Revolution and the Soviet Regime (3)

490T Senior Research Seminar (3)

(When topic is Russian Revolution or Polish History)

### Philosophy

382 Marx and Marxism (3)

### Political Science

430T Government and Politics (of a Selected Nation-State) (3)

431T Government and Politics (of a Selected Area) (3)

443 Theory and Philosophy of Marxism (3)

452T Foreign Policy (of a Selected Country or Group of Countries) (3)



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6 Clobal Media Systems (3) Imparative Literature

Twentieth Century Russian Literature

1 Economies in Transition (3)

# science education

### INTRODUCTION

Science Education is a specialized area of learning and instruction related to the pre-service and in-service education of science teachers.

The Science Education Program prepares students to teach science at the elementary and secondary levels; provides guidance for experienced teachers in the study and use of educational practices developed for the teaching of sciences; and helps teachers develop original ideas in

their areas of specialization.

The offerings of this program include basic professional training courses required for teaching-certification in the physical and life sciences. advanced course work in science education, and certain academic content offer-

ings designed



especially for teacher preparation.

The program teaches scientific content, scientific processes and curriculum for prospective and practicing elementary teachers. These courses are in the physical sciences and the biological sciences.

The program offers courses for prospective and practicing secondary teachers in the methods of teaching science and in the processes of science and is responsible for the supervision of teachers in student teaching assignments. The courses and experiences provide prospective secondary teachers with the skills necessary to teach the scientific content of their particular science certification.

### **TEACHING CREDENTIALS**

The following courses offered by the Science Education Program are required of candidates for teaching credentials in science.

### Single Subject Credential Candidates—Science (K-12)

Professional Courses

Science Ed 412 Processes of Science (3)

Science Ed 442 Teaching Science in the Secondary School (3)

Science Ed 449E Externship in Secondary Teaching (3)

Science Ed 4491 Internship in Secondary Teaching (10)

Science Ed 449S Seminar in Secondary Teaching (2)

The student should take Science Ed 442 concurrently with Science Ed 449E (5 weeks of student teaching at the end of the semester). Science Ed 449I (full-time student teaching) and Science Ed 449S are taken concurrently in the following semester. Science Ed 412 is a prerequi-

### **PROGRAM COORDINATOR:**

Gaylen R. Carlson

### PROGRAM OFFICE:

McCarthy Hall 629-C

### **PROGRAMS OFFERED**

Master of Arts in Teaching Science (MAT-S)
Subject Matter Preparation Program for
the Single Subject Credential in
Science (K-12)

### FACULTY

Gaylen R. Carlson (Geological Sciences), H. Eric Streitberger (Chemistry and Biochemistry, emeritus), Barry Thomas (Biological Sciences)

### **ADVISERS**

MATS: Gaylen R. Carlson
Secondary Teaching Certification: Gaylen
R. Carlson, H. Eric Streitberger, emeritus, and
Barry Thomas

site for Science Ed 449I and must be included in the student's study plan. It can be taken concurrently with 442 and 449E.

### Courses Approved for the Single Subject Credential in Science

The Single Subject credential in Science consists of breadth requirements and a concentration in one of the following: Biology, Chemistry, Geology, or Physics.

Breadth of Study in Science (28-36 units)

Biology 131 Principles of Biology (3)

Select one of the following:

Biology 241 Principles of Botany (4)

OR Biology 261 Principles of Zoology (4)

Chemistry 120A,B General Chemistry (10)

Geological Sci 101 Physical Geology (3)

Geological Sci 101L Physical Geology Lab (1)

Geological Sci 420 Earth Science for Teachers (4)

Physics 211, 212 Elementary Physics (6)\*

Physics 211L, 212L Elementary Physics Lab (2)\*

Science Ed 412 Processes in Science (3)

\*Not for majors in the subject matter area.

### Concentrations in Science

Classes normally associated with a major or a concentration in one of the following: Biological Science (22-24 units), Chemistry and/or Biochemistry (22-23 units), Geological Sciences (22 units), or Physics (27 units). Call Science Education advisers for required selected courses and prerequisites, approved equivalent or substitutions of courses.

Subject Matter courses for a Concentration in Biology (22-24 units)

Chem 301 A,B; 302; and Math 130, 150A, or 337; Biol 241; Botany (4); and Biol 261; Zoology (4)

Molecular and Cellular Biology
 Biol 312 Genetics and Molecular

Biology (3)
Biol 315 Cell and Developmental

Biology (3)
Biol 320L Cell and Molecular

II. Functional Biology of Organisma

Laboratory (2)

A. Biology of Plants and Animals (select one):

Biol 317 Field Marine Biology (3) Biol 340 Field Botany (3) Biol 419 Marine Ecology (3)

Biol 442 Pollination Biology (3)

Biol 443 Plant Ecology (3)

Biol 446 Marine Phycology (4)

Biol 465 Animal Ecology (4)

Biol 466 Animal Behavior (3)

Biol 467 Entomology (4)

Biol 474 Natural History (4)

Biol 475 Ichthyology (4)

Biol 476 Herpetology (4)

Biol 478 Mammology (4)

Biol 479 Ornithology (4)

B. Physiology of Plants and Animals (select one):

Biol 362 Mammalian Physiology (4)

Biol 444 Plant Physiology (4)

Biol 468 Comparative Animal

Physiology (4)

Biol 470 Cellular Neurobiology (4)

### III. Ecology

Biol 316 Principles of Ecology (4)

IV. Evolution Concepts, Mechanisms and Patterns (select one):

Biol 344 Survey of Land Plants (4)

Biol 401 Biogeography (3)

Biol 403 Biosystematics (3)

Biol 404 Evolution (3)

Biol 441 Plant Taxonomy (4)

Biol 450 Conservation Biology (3)

Biol 461 Invertebrate Zoology (4)

Subject Matter Courses for a Concentration in Chemistry (20-26 units)

Math 150A Calculus (Prerequisite)

Math 150B Calculus (Prerequisite)

Chem 301A Organic Chemistry (3) Chem 301B Organic Chemistry (3)

Chem 315 Quantitative Chemistry Lecture (3)

chem 313 Quantitudive Chemistry Lecture (5,

Chem 316 Quantitative Chemistry Lab (1) Chem 361A Intro to Physical Chemistry (3)

Chem 361B Intro to Physical Chemistry (3)

Select two classes of the following:

Chem 325 Inorganic Chemistry (3)

Chem 423A General Biochemstry (3)

siem 12311 deneral bioenemony (3)

Chem 423B General Biochemistry (3) Chem 302 Organic Chemistry Lab (2)

Chem 431 Advanced Organic Chemistry (3)

Chem 435 Chemistry of Hazardous

Materials (2)

Chem 437 Environment Water Chemical (2)

Subject Matter Courses for a Concentration in Geolgical Sciences (22 units)

Math 150A,B Calculus (Prerequisite)

Math 150B Calculus (Prerequisite)

Geol 201 Earth History (4)

Geol 303A Minerology and Petrology (4)

Geol 303B Minerology and Petrology (4)

Geol 333 General Oceanography (3)

Geol 340 General Meteorology (3)

Geol 200 Introduction to Astronomy (4)

Subject Matter Courses for a Concentration in Physics (27 units)

Math 150A Calculus (Prerequisite)

Math 150B Calculus (Prerequisite)

Phys 225 Mechanics (3)

Phys 225L Mechanics Lab (1)

Phys 226 Electricity ad Magnetism (3)

Phys 227 Waves, Optics and Modern Physics (3)

Phys 227L Waves, Optics and Modern Physics Lab (1)

Phys 310 Thermodynamics, Kinetics, and Stat Physics (3)

Phys 320 Classical Mechanics (4)

Phys 330 Electromagnetic Theory (4)

Physics 340 Modern Physics (4)

### Courses Approved for the Child Development and the Liberal Studies Multiple Subject Matter Programs

Selections from the following courses may be used to meet degree requirements for the Child Development major or the Liberal Studies major:

Science Ed 410 Physical Science Concepts (3)

Science Ed 453 Life Science Concepts (3)

In recognition of the need for education in nature interpretation and conservation, the Science Education Program offers course work and internships in these disciplines. Much of this course work takes place at the Tucker Wildlife Sanctuary in the Santa Ana Mountains.

# MASTER OF ARTS IN TEACHING SCIENCE

The primary objectives of the Master of Arts in Teaching Science are to provide advanced course work in science curriculum designs appropriate to the professional responsibilities of science educators; to provide research and seminar opportunities in contemporary issues in science education; and to enable teachers to become more proficient in science disciplines appropriate to their academic teaching assignments. A secondary track and an elementary track are available.

Fifteen units of course work is selected from the departments of Biological Science, Chemistry and Biochemistry, Computer Science, Geological Sciences, Physics, or Science Education (if elementary track). Nine units of course work are required from the Science Education Program. The graduate work culminates with the student completing a project or thesis in an area of science education which is applicable to the student's teaching. Faculty from the program and other departments form the committee which guides and evaluates each graduate student.

### Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted. For the secondary track, the baccalaureate must be in one of the sciences (biology, chemistry, geological sciences, physics) and/or related fields. For the elementary track, the baccalaureate will normally not be in the sciences.

### Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements, may be granted classified standing upon the development of an approved study plan. Candidates:

- (Secondary Track) must be science instructors or curriculum coordinators/supervisors as evidenced by an appropriate credential certifying that they may teach in one of the science disciplines below the collegiate level;
  - (Elementary Track) must be credentialed elementary teachers or certified curriculum coordinators/supervisors in elementary education;
- (Secondary Track) must declare an area of teaching specialization (the graduate committee for all candidates will include instructors from the academic departments of the student's teaching specialty or emphasis); may be asked to take a diagnostic examination.

(Elementary Track) must take a diagnostic examination.

The purpose of the diagnostic examination is to aid advisers in recommending appropriate science course work. Course work as designed by advisers may be required prior to taking more advanced course work. Such course work will not count toward the 30-unit degree requirement.

- 3. must have adequate science preparation; and
- 4. must have a minimum grade-point average of 2.5 in science prerequisites.

### Study Plan

The degree program consists of 30 units of upper-division or graduate course work within the School of Natural Science and Mathematics, of which at least half must be 500-level, and which must be completed with a grade-point average of 3.0 or better.

- (Secondary Track) 15 units will be in the sciences, in upper-division and graduate courses. At least nine units will be taken in one of the following: biology, chemistry, computer science, geological sciences or physics.
  - (Elementary Track) 15 units in upperdivision and graduate courses. Electives will be chosen from biology, chemistry, computer science, geological sciences, physics or science education.
- 2. 15 units will be in science education with the following requirements:

Core Courses

- 550 Theoretical Designs in Science Education (3)
- 552 Review of Research in Science Education (3)

(This course meets the Graduate Level Writing Requirement.)

554 Issues in Science Education (3)

Culminating Experience

598 Thesis (6)

OR 597 Project (3) and 599 Independent Graduate Research (3)

For further information and advisement, consult the graduate program adviser or coordinator of the Science Education Program.

### **SCIENCE EDUCATION COURSES**

### 410 Physical Science Concepts (3)

Prerequisite: completion of general education natural science requirements or consent of instructor. For elementary school teachers. Major concepts in the physical sciences. Observing, classifying, recognizing spacetime relations, measuring, inferring, formulating hypotheses, controlling variables and interpreting data. (2 hours lecture, 2 hours activity)

### 412 Processes of Science (3)

Prerequisites: junior or senior standing in a science major or admission to the MAT-Science graduate program. Methodologies (action research), logical procedures and explanatory systems that characterize the various natural sciences. The role of science and technology in society. (2 hours lecture, 1 hour activity, 1 hour TBA)

# 442 Teaching Science in the Secondary School (3)

Prerequisite: appropriate education and science education course work for credential. Objectives, methods, and materials including audiovisual instruction for teaching science. Required before student teaching for candidates for the single subject teaching credential in either the life sciences or the physical sciences. (2 hours lecture, 2 hours activity)

### 449E Externship in Secondary Teaching (3)

Prerequisite: Science Education 412 (may be taken concurrently) (See description under Secondary Education)

### 449I Internship in Secondary Teaching (10)

(See description under Secondary Education)

### 449S Seminar in Secondary Teaching (2)

(See description under Secondary Education)

### 453 Life Science Concepts (3)

Prerequisite: completion of general education requirements or consent of instructor. Biological principles using science processes appropriate for elementary teachers. (2 hours lecture, 2 hours activity)

### 495A,B Naturalist Internship (3,3)

Prerequisite: consent of instructor.

Supervised in-service training at the Tucker

Wildlife Sanctuary. For the prospective biological science teacher, communications
major and others interested.

### 499 Independent Study (1-3)

Special topics in science education, selected by consultation and completed under the supervision of the instructor. May be repeated for credit.

# 550 Theoretical Designs in Science Education (3)

Review of major directions, designs and assumptions of science education reform such as the nature of science and scientific inquiry, scientific literacy, the National Science Education Standards, state curricular frameworks and international and national science assessment. Emphasis will be placed on how reform affects curriculum, major curricular projects and curricular evaluation. (3 hour lecture)

# 552 Review of Research in Science Education (3)

Prerequisites: graduate standing. A review of relevant literature which provides the foundation for modern reform in science education. Analyses of research design and execution of appropriate experimental or observational procedures to test hypotheses concerning problems in science education. (3 hours lecture)

### 554 Issues in Science Education (3)

Prerequisite: graduate standing. Major contemporary issues in science education. (3 hours lecture)

### 597 Project (3)

Prerequisite: advancement to candidacy and an appointed thesis committee. The selection, investigation and written presentation of a project in science education.

Concurrent enrollment in 599 (3 units) also is required.

### 598 Thesis (6)

Prerequisite: advancement to candidacy and an appointed thesis committee. The selection, investigation and written presentation of an experimental problem in science education.

### 599 Independent Graduate Research (1-2-3)

Graduate student research in a specific area of science education. May be repeated for credit.

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### SINGLE SUBJECT PRELIMINARY CREDENTIALS

Although a person seeking a Single Subject Credential may complete any academic major, the person would most likely decide to complete the degree major closest to the subject field he or she wishes to be authorized to teach. CSUF offers the Single Subject credential in the following State-authorized subject fields:

Art

**Business Education** 

English (English, Theatre)

French

German

Government (Political Science)

History

Japanese

Life Science (Biology)

Mathematics

Music

Physical Education

Physical Sciences (Chemistry,

Geology and Physics)

Social Sciences (Anthropology, American Studies, Economics, Geography, Chicano Studies, History, Afro-Ethnic Studies,

Psychology and Sociology)

Spanish



### CLAD CERTIFICATE

The Crosscultural Language and Academic Development (CLAD) is certification to work with the growing number of language minority students in the public schools. The certification requires: Ed Sec 440M, Ed Sec 440R, Ed Sec 440C, and Ed Sec 440D.

### SECONDARY EDUCATION COURSES

### 110 The Teaching Experience: Exploration (2)

Exploration of one's self in relation to other people in the schools and an encounter with the teaching experience through fieldwork. Accompanying seminar to help students extend their observations and explore relevant issues. (2 hours fieldwork, 2 hours seminar) (Credit/No credit only)

### 310 The Teaching Experience: Participation (3)

Active participation in public school classrooms. Two hours of fieldwork and two hours of seminar. Seminar assists students in the analysis of the field work experiences; addresses philosophical, social, and historical foundations of education; and aids the student with the initial development of a Teaching Portfolio. May be repeated with the consent of the instructor. Credit/No Credit. A "B" or better is required to receive a grade of credit.

### **DIVISION OF EDUCATION**

### **DIVISION CHAIR**

Vacant

### **DEPARTMENT HEAD**

Ron Pahl

### **DEPARTMENT OFFICE**

Education Classroom 379

### **PROGRAM OFFERED**

Basic Teacher Credential Program
Single Subject Credential

### **FACULTY**

Marty Bonsangue (Mathematics), Dorte Christjansen (Art), Duane Clizbe (Secondary Education), Victoria Costa (Secondary Education), Margaret Doyle (Science), Paul Kane (Secondary Education), Patti Laguna (KHP), Jeff McQuillan (Secondary Education), Faye Miltenberger (Foreign Languages), Sallie Mitchell (Theatre), Ron Pahl (Secondary Education), Fred Ramirez (Secondary Education), Lynda Randall (Secondary Education), Clay Sherman (KHP), Helen Taylor (Secondary Education) Barry Thomas (Science), John White (English), Vance Wolverton (Music), Nelson Woodard (History)

### 386 Adolescence (3)

The physical, social and cultural development of human adolescents and youth.

Contemporary factors producing change.

### 404 Microcomputers for Secondary School Classrooms (3)

Prerequisite: Ed Sec 310. A course for secondary school teachers to use microcomputers in computer-assisted instruction in various curriculum areas and as an instructional tool.

### 405 Methods of Teaching Secondary School Business Courses Involving Computers (3)

Prerequisites: Ed Sec 310 or equivalent; Manag Sci/Info Sys 265 or equivalent. A teaching strategies course for business education teachers. Curriculum development techniques and problems of teaching business courses involving computers. Review and evaluation of texts, software, and other materials for instruction are included.

# 407 Computer Technology for the Social Studies Classroom (3)

Prerequisite: Ed Sec 310. Provides the social studies teacher with skills to utilize computer technology. Covers social studies applications in word processing, spreadsheet, database, simulations, graphics, modems and laser disc interfaces. Meets state computer requirements for clear single subject credential.

### 440C Teaching Content Area Courses to Language Minority Students (3)

Prerequisite: Ed Sec 310 or equivalent, EDSEC 440M and EDSEC 440R. Focus on strategies for teaching sheltered classes to limited English proficient students and non-standard dialect students. Brief overview of second language acquisition and language development to study the implications for teachers of content-area courses.

### 440D Seminar in Teaching Strategies for Developing Academic Competence Across the Curriculum (3)

Prerequisites: Ed Sec 440M and 440R.

Corequisite: Ed Sec 440C or approval of instructor. Fourth course required for CLAD certification includes an overview of Academic English as a language code, research in the development of academic competence, principles for teaching Academic English, and teaching strategies for developing academic competence skills across the curriculum.

# 440F Supervised Fieldwork in Secondary Schools (2)

Prerequisite: admission to teacher education. Observation and participation in instruction in secondary school learning centers 3 hours daily. Fieldwork associated with Ed Sec 440R, 440S and 442. Taken concurrently with these courses. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

# 440M Multicultural Education in Public Schools (3)

Key concepts, issues and terms in multicultural education; basic information about various ethnic groups in the United States, particularly in California; and instructional approaches and strategies for teaching lessons in content areas about and/or to students from various ethnic backgrounds, particularly those who are limited in their proficiency in academic English. May be taken Credit/No Credit or for a letter grade. A "B" or better is required to receive a grade of credit.

### 440R Instruction in Reading for Secondary School Teaching (3)

Rationale, concepts, issues, methods, and teaching strategies in the area of developing literacy and cognitive skills across the curriculum; an overview of approaches to improve secondary-level students' vocabulary, reading comprehension, composition, cognitive and study skills in content-area classes. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

### 440S General Pedagogy of Secondary School Teaching (4)

Prerequisites: Interrelationship of pedagogical theory and practice, presented through collaboration with local districts to insure real-world application. Includes instructional planning, evaluation of student learning, addressing student diversity, lesson presentation, and teacher professionalism. Seminar is front-loaded in the first ten weeks of the semester. Taken concurrently with Ed Sec 440F, 440R and 442. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

### 442 Teaching in the Secondary School (3)

Prerequisite: admission to teacher education. Strategies and techniques for teaching a specified subject in the secondary school. Required before student teaching in the specified single subject credential area. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

### Art Ed 442 Teaching Art in the Secondary School

Ed Sec 442 Teaching Business in the Secondary School

Ed Sec 442S Teaching Social Science in the Secondary School

Engl Ed 442 Teaching English in the Secondary School

For Lang Ed 442 Teaching Foreign Languages in the Secondary School

Kinesiology 442 Teaching Physical Education in the Secondary School

Math Ed 442 Teaching Mathematics in the Secondary School

Mu Ed 442 Principles and Methods of Teaching Music in the Public Schools Sci Ed 442 Teaching Science in the

Speech Ed 442 Teaching Speech in the Secondary School

Theatre Ed 442 Teaching Theatre in the Secondary School

### 449E Externship in Secondary Teaching (3)

Secondary School

Prerequisite: concurrent enrollment in Ed Sec 440F, 440S and 442. Co-teaching in two secondary school classrooms. Integrated with Ed Sec 440F, 440R, 440S and 442. (See appropriate departmental offerings.) Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

### 449I Internship in Secondary Teaching (10)

Prerequisite: admission to student teaching. Corequisite: Ed Sec 449S. Full time student teaching in a specific single subject in a secondary school. (See appropriate departmental offerings.) Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

### 449S Seminar in Secondary Teaching (2)

Co-requisite Ed Sec 4491. Seminar in problems and teaching in a single subject in secondary schools. (See appropriate departmental offerings.) Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

### 499 Independent Study (1-3)

Prerequisites: senior or graduate standing, approval of instructor and department.

Conduct an individual investigation under supervision of a faculty member; investigation might be an experiment, a library study, or a creative project; only students of demonstrated capacity and maturity will be approved; adequate prerequisite study necessary.

### 550 Instructional Strategies (3)

Prerequisite: baccalaureate degree or consent of instructor. A general course in pedagogy designed for students whose profession work involves instructional responsibilities. General teaching strategies, course design, instruction planning, and student evaluation are emphasized.

### 551 Program Evaluation in Deduction (3)

Prerequisite: Ed Sec 510 or Ed Elm 511 or equivalent. Methods of evaluating educational programs. Analysis of the models, theories, and underlying assumptions of evaluation. Data-gathering methods, analysis of data and preparation of reports.

### 597 Project (1-3)

Prerequisite: consent of instructor. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

# sociology

DEPARTMENT CHAIR

Ronald Elliott Hughes

### **DEPARTMENT OFFICE**

Humanities 730M

### **PROGRAMS OFFERED**

Bachelor of Arts in Sociology

Proposed Emphases:

Family

Gerontology

Social Work

Teacher Preparation

Crime and Delinquency

Class, Race and Gender

Minor in Sociology

Master of Arts in Sociology

Emphasis in Gerontology

Emphasis in Applied Social Research

### **FACULTY**

Takenori Aso, John Bedell, Tony Bell, Dennis Berg, Jonathan Brower, Helaine Feingold, Rosalie Gilford, Lisa Greenwell, Ronald Hughes, Hilla Israely, Perry Jacobson, G. Nanjundappa, Rae Newton, Myron Orleans, Michael Perez, Houshang Poorkaj, Lorraine Prinsky, Gerald Rosen, C. Michael Stuart, Clarence Tygart, Troy Zimmer

### INTRODUCTION

Sociology is the systematic and scientific study of society and social behavior. The sociologist looks beyond individual and unique events to the predictable broad patterns and regular occurrences of social life that influence individuals. Studies range from the profound impact of post industrial societies on family life, crime, mass communications, gender, race, ethnicity, and intergenerational relations to the study of emotions and the values that govern daily social encounters.



The sociology major is designed to provide undergraduate preparation leading to careers in social work, politics, law, public administration, urban and environmental planning, public relations, personnel, criminal justice, counseling and other service professions. The Bachelor of Arts in Sociology will also prepare a student for advanced studies in several areas including sociology, social welfare, environmental studies, education, public health and urban planning.

### Field Experience

Sociological Internships

The internship course, Sociology 495, offers the opportunity for students to participate in supervised field activities. The internship permits students to apply their relevant sociological

knowledge to meet challenges of a practical setting. Each course can be used to earn three units of credit for such experiences. Students must make arrangements with the Internship Coordinator one semester prior to enrollment in the course. The course may be repeated for a maximum of six units credit.

### Independent Studies

The independent study course, Sociology 499, allows students to expand upon their special interests in the field of sociology. Independent studies are usually in areas not covered by the normal course offerings of the department and consists of individual research projects. Research projects may also include library research or actual field research. Enrollment in the course requires that students meet regularly with their faculty supervisors. One to three units of credit may be earned. (Forty hours of fieldwork is required for every unit of credit.) The course may be repeated for a maximum of nine units credit.

NOTE: No more than a total of nine units of a combination of internship and independent study may be applied toward the major.

### **ADVISERS**

Undergraduate: All sociology majors are assigned a faculty adviser. Please contact the department office.

Graduate: Rae Newton

### BACHELOR OF ARTS IN SOCIOLOGY

Students majoring in sociology are required to complete a minimum of 36 units of course work in sociology. Included within the 36 units are 12 units of courses required of all majors and 24 units of adviserapproved electives tailored to each student's career objectives. In addition to the minimum of 36 units, students must satisfy the 3 unit writing requirement listed below. At least 27 units must be upper division. A total of nine adviser-approved units may be transferred from a community college.

### Required Courses (12 units)

Sociology 101 Introduction to Sociology (3)
Sociology 301 Theories of Social Behavior (3)
Sociology 302 Social Research Methods (3)
Sociology 303 Statistics for the Social
Sciences (3)

### Writing Requirement (3 units)

Sociology 308 Writing for Sociology
Students (3)

English 301 Advanced College Writing (3)
English 360 Scientific and Technical Report
Writing (3)

English 365 Legal Writing (3)

OR an adviser-approved upper-division writing course.

### Electives (24 units)

Students are to select a minimum of 24 units of elective course work in sociology consistent with their career objectives.

NOTE: All courses counting toward the major must be taken for a letter grade.

Students under Fall 1991 and later catalogs must pass required courses and the writing requirement with a grade of C or better.

### **Emphasis Options**

As part of the 24 units in elective coursework, students may choose to focus on a specific area of study by choosing 12 units of adviser-approved electives. The following emphases have been proposed: Family, Gerontology, Social Work, Teacher Preparation, Crime and Delinquency, and Class, Race and Gender. Please contact the Sociology Department office for further information.

### **MINOR IN SOCIOLOGY**

### Required Courses (9 units)

Sociology 101 Introduction to Sociology (3) Sociology 301 Theories of Social Behavior (3) Sociology 302 Social Research Methods (3)

### Elective Courses (12 units)

Students select 12 units of upper-division course work in sociology.

### **MASTER OF ARTS IN SOCIOLOGY**

The Sociology Department accepts graduate students in the fall and spring semesters of each academic year. The program for this degree provides advanced study in general sociology. It offers an opportunity to broaden one's knowledge of society, to strengthen skills of sociological analysis and to do research in depth in an area of particular interest. It may be used as preparation for study toward the doctorate in sociology, for community college teaching, participation in research or for a variety of positions in business and industry, corrections, the community or government.

The 30-unit program is composed of a 12-unit core course sequence that all students must complete. Depending on options chosen by the student, the core course sequence is augmented with requirements for the special emphasis and electives to total 30 units. The Master of Arts program is designed to facilitate close contact between students and faculty, to encourage students to accept a role in the selection of course offerings, and to participate in areas of departmental decision making.

### Prerequisites

Students must meet the university requirements for admission to graduate standing.

Please see the "Graduate Regulations" section of this catalog for policies and procedures on admission of graduate students.

In order to be accepted as a sociology graduate student, the applicant must have a grade-point average of 2.75 or better in the most recent 60 units of college work and a grade-point average of 3.0 (B) or better for all work in sociology. A minimum of 18 upperdivision units in sociology is required, including the following courses or their equivalents:

Sociology 301 Theories of Social Behavior (3)
Sociology 302 Social Research Methods (3)
Sociology 303 Statistics for the Social
Sciences (3)

Courses in methods, statistics and theory must have been completed within the last five years prior to application. Two letters of reference attesting to the applicant's academic potential must be sent to the graduate coordinator.

Students will be accepted as conditionally classified sociology majors with either course or GPA deficiencies. Deficiencies must be corrected within one year of admission to the program.

Students will be classified upon the fulfillment of the above prerequisites, and after an approved study plan has been developed, in consultation with the Graduate Committee.

### Study Plan

The study plan for the degree must be completed with a minimum grade-point average of 3.0 with no course grades below C. The study plan is approved by the student's adviser and includes the following:

Core Course Sequence - All Students (12 units)

Sociology 502A The Research Process (3)

Sociology 502B The Research Process (3)

Sociology 581 Advanced Theories of Social Behavior (3)

Sociology 501T Seminar: Topics in Societal Structure and Process (3)

NOTE: Sociology 502A and 581 are designed to be taken during the first semester of graduate studies.

Electives (12-15 units)

Electives to be chosen from the following categories consistent with each student's goals, subject to approval by the graduate adviser and limited by the maximum number of units set for each category.

500-level graduate seminars (maximum 15 units)

400-level Sociology courses (maximum 6 units)

Sociology 596 Community College Symposium (3)

> OR Sociology 597 Project: Agency Placement (3)

(maximum 6 units any combination of Sociology 596 or 597)

Sociology 599 Independent Graduate Research (1-3)

NOTE: Maximum of nine units of any combination of Sociology 596, 597, or 599 allowed on the study plan.

Thesis/Project/Comprehensive Exam (3-6 units)
Sociology 598 Thesis (3) plus Thesis Writing
Course (3)

OR Sociology 597 Project: Agency Placement (3-6)

OR Sociology 599 Independent Graduate Research (3-6) plus Comprehensive Exam

It is highly recommended that students planning on doctoral studies complete the thesis option.

For further information, consult the graduate program adviser.

### **EMPHASIS IN GERONTOLOGY**

This emphasis within the M.A. in Sociology prepares students for careers as planners, policy makers, service providers, administrators, and researchers who work in business, industry, government offices and community programs with or on behalf of the elderly.

### Study Plan

The study plan for the degree must be approved by the Gerontology adviser and must include the following:

Core Course Sequence (12 units)

Sociology 502A The Research Process (3)

Sociology 502B The Research Process (3)

Sociology 501T Seminar: Topics in Societal Structure and Process (3)

Sociology 581 Advanced Theories of Social Behavior (3)

Gerontology Sequence (12 units)

Two Gerontology-related 400-level Sociology courses (6)

Sociology 597 Project: Agency Placement (6)

NOTE: A one-year placement in a gerontology-related organization or organizations (6 units) culminates in an extensive review of activities within these organizations that integrate these activities with sociological and gerontological theory.

Electives (6 units)

Adviser-approved 400- or 500-level courses in Sociology or related fields.

## EMPHASIS IN APPLIED SOCIAL RESEARCH

This emphasis within the M.A. in Sociology prepares students for research analyst positions in business firms, government agencies, educational institutions and medical institutions.

### Study Plan

The study plan for the degree must be approved by the Applied Research advisor and must include the following:

Core Course Sequence (12 units)

Sociology 501T Seminar: Topics in Societal Structure and Process (3)

Sociology 502A The Research Process (3)

Sociology 502B The Research Process (3)

Sociology 581 Advanced Theories of Social Behavior (3)

Applied Research Sequence (12 units)

Sociology 501T Seminar: Topics in Societal Structure and Process (3)

Sociology seminar course covering the structure of social research (3)

Sociology 597 Project: Agency Placement (6)

NOTE: A one-year placement in a research setting or settings (6 units) culminates in an applied research paper, similar to a thesis, but with an applied as opposed to a theoretical approach.

Electives (6 units)

Adviser-approved 400- or 500-level courses in Sociology or related fields.

### **SOCIOLOGY COURSES**

### 101 Introduction to Sociology (3)

The basic concepts of sociology: includes social interaction, culture, personality, social processes, population, social class, the community, social institutions and sociocultural change. (CAN SOC 2)

### 133 Introduction to Gerontology (3)

Multidisciplinary overview of characteristics, strengths, and problems of older persons; diversity in aging process involving gender, race, ethnicity, subculture; services to older adults; gerontology as an academic discipline and a field of practice.

### 300 Introduction to Social Welfare (3)

Prerequisite: Sociology 101 or consent of instructor. The history, philosophy and development of thought in social welfare; the social work methods (casework, group work and community organization); social work as a career objective; social work practice; availability of employment and qualifications necessary.

### 301 Theories of Social Behavior (3)

Prerequisite: Sociology 101 or consent of instructor. The main schools of sociological thought, both European and American.

Systems of theory, methodology of theorists, cultural change and social institutions.

### 302 Social Research Methods (3)

Prerequisite: Sociology 101 or consent of instructor. Topics include: research design, methods of gathering data, the role of theory in research, sampling methods and problems, data processing and analysis.

### 303 Statistics for the Social Sciences (3)

Prerequisites: Sociology 101 and Mathematics 110 or equivalent or consent of instructor. The techniques for the elementary statistical analysis of social data. Description and inferential measures include t tests, chisquare, analysis of variance, contingency table analysis and linear regression.

### 305 Techniques of Social Welfare (3)

Prerequisites: Sociology 101 and 300 or consent of instructor. Methods and theories underlying social work practice. History, values and philosophy of the profession. Methods and skills. Casework issues and trends in social work practice.

# 306/306S Social Problems and Urban Explorations (4)

Analysis of social problems with a community service component. Class topics include social inequality, race relations, violence, and issues of citizen responsibility for intervention. Students will be placed in community service programs to obtain firsthand experience with class topics.

### 308 Writing for Sociology Students (3)

Prerequisite: Sociology 101 or consent of instructor. Composition, sources of information and sociological writing for different audiences. Satisfies the classroom portion of the upper-division writing requirement for sociology majors. Instructional fee.

### 309 Computers in Sociology (3)

Prerequisite: Sociology 101 or consent of instructor. Introduction to computer applications in Sociology. Training in use of CSUF mainframe computers, software and microcomputers. Topics include: survey analysis with SPSS; constructing and editing data files and word processing.

### 333 Sociology of Aging (3)

Prerequisite: Sociology 101 or consent of instructor. Analysis of population age structure; theories of aging; aging in family, economic, political, religious, educational, leisure/esthetic institutions. Aging and ethnicity. Social policy and the future of aging.

### 341 Social Interaction (3)

Prerequisite: Sociology 101 or consent of instructor. The social and sociopsychological dimensions of group behavior and the socialization of the individual. Social interaction and its impact on the individual and personality formation.

### 345 Sociology of Communication (3)

Prerequisite: Sociology 101 or consent of instructor. The social processes involved in communicating with symbols—verbal, visual and "body-language"—in interpersonal settings and the mass media.

### 348 Collective Behavior (3)

Prerequisite: Sociology 101 or consent of instructor. Characteristics of crowds, mobs, public. Analysis of social movements and revolutions, their relation to social unrest and their role in developing and changing social organization.

### 350 Social Relationships and Emotions (3)

Prerequisite: Sociology 101 or consent of instructor. Consideration of social relationships emphasizing emotional bonds as the primary integrating force, including interactions between emotions and relationships.

### 361 Population and the Environment (3)

Prerequisite: Sociology 101 or consent of instructor. Population composition, growth and movement. Social factors affecting birth rates, death rates and migration. Environmental and resource base implications of population growth, urbanization and migration. The role of the economy, poverty, gender and development on population dynamics also discussed.

### 371 Urban Sociology (3)

Prerequisite: Sociology 101 or consent of instructor. The population and ecology, patterns of growth, institutions, characteristic social interaction, values and problems of the urban community.

### 372 Social Futures (3)

Prerequisite: Sociology 101 or consent of instructor. The tools for projecting future probabilities and possibilities. The broad social and moral implications of scientific and technological advances. Procedures and consequences of social design.

### 381 Sociology of Human Sexuality (3)

Prerequisite: Sociology 101 or consent of instructor. Study of the sociological aspects of human sexuality, socio-historical and comparative perspectives; relationships of sexual interaction to life cycle, gender, race, class and power.

### 385 Family Violence (3)

Prerequisite: Sociology 101 or consent of instructor. For professions dealing with victims and/or perpetrators of family violence. Explores causes, intervention and prevention of all types of abuse: child, sibling, spouse and parent. Examines theories, research findings and practical field application.

### 407 Women in Contemporary Society (3)

Prerequisite: Sociology 101 or consent of instructor. Women in American society. Sex role socialization, sexism in institutions, labor force participation, female health and sexuality.

### 408 Sexual Abuse in American Society (3)

Prerequisites: Sociology 101, 466 or consent of instructor. Sociological examination of sexual abuse in contemporary society, specifically patterns of forcible rape and child sexual victimization. Presentation of theories and research findings regarding causes, consequences and other dynamics of sexual victimization, including responses of social groups to such victimization.

### 411 Criminology (3)

Prerequisite: Sociology 101 or consent of instructor. The extent, causes and control of criminal behavior. The criminal law, causal factors and theories, correctional institutions, probation and parole, and preventive efforts.

### 413 Juvenile Delinquency (3)

Prerequisite: Sociology 101 or consent of instructor. Juvenile delinquency as a social problem. Sociological study of the causes of delinquent behavior, and programs of control, treatment and prevention.

### 415 Sociology of Corrections (3)

Prerequisite: Sociology 101 or Sociology 411 or 413 or consent of instructor. Current problems and programs in probation, parole and correctional institutions. For students planning careers in corrections.

### 416 Sociology of Alcoholism (4)

Prerequisite: Sociology 101 or consent of instructor. Sociological analysis of alcoholism. The socio-emotional causes and consequences of this type of drug addiction. (3 hours seminar; 2 hours activity)

### 431 Minority Group Relations (3)

Prerequisite: Sociology 101 or consent of instructor. Examines the development and current conditions of minority/majority relations through study of social, political and economic causes and consequences of prejudice and discrimination. Evolutionary and revolutionary movements for change will be studied.

### 433 Aging and Social Services (3)

Prerequisite: Sociology 333 or consent of instructor. Sociological analysis of social problems of aging with special emphasis on strategies of intervention and barriers to service utilization. Critical examination of community service delivery systems. Review of career opportunities and qualifications required.

### 436 Social Stratification (3)

Prerequisite: Sociology 101 or consent of instructor. Social class structures and their functions. Styles of life; determinants of class status; vertical social mobility; change in class systems.

### 450 Sociology of Sex Roles (3)

Prerequisite: Sociology 101 or consent of instructor. The effect of traditional and non-traditional sexual stereotypes on attitudes and behavior within the family, the educational system, the economic system and the legal system.

### 451 Sociology of the Family (3)

Prerequisite: Sociology 101 or consent of instructor. The family as a social institution. Historical and cross-cultural perspectives; social change affecting marriage and the family; analysis of American courtship and marriage patterns; the psycho-dynamics of family life.

### 452 The Sociology of Education (3)

Prerequisite: Sociology 101 or consent of instructor. Education as a social process and a social institution. The relationship between education as a social process and a social institution, between education and sociology, the social functions of education. The socialization process, the school and the community, and the school as a social institution.

### 453 Child in American Society (3)

Prerequisite: Sociology 101 or consent of instructor. The child's role in America, peer group participation, sibling rivalry and sibling order. The societal attitudes toward the child's place in society.

### 458 Sociology of Religious Behavior (3)

Prerequisite: Sociology 101 or consent of instructor. Religious behavior examined by social science theories. Religious rituals/beliefs to cope with anxiety and powerlessness before natural forces and social structures and processes. Religion's contributions to individual identity, societal order and change. (Same as Religious Studies 458)

# 459 The Sociology of Marital Dissolution (3)

Prerequisite: Sociology 101 or consent of instructor. The social-psychological causes and consequences of voluntary marital dissolution (separation, divorce). Topics include: the erosion of attachment, personal identity changes, changing and new relationships with others, starting over, dating again, sexuality changes, loneliness, anxieties.

### 460 Sociology of Death and Dying (3)

Prerequisite: Sociology 101 or consent of instructor. Dying as a social process; functions of bereavement behavior; the grief process; fear of death and dying; death related rituals, demographic aspects of mortality; American death acceptance-denial controversy.

### 465 Law and Society (3)

Prerequisite: Sociology 101 or consent of instructor. Examines the relationship between a society and its laws using sociological theory and major concepts. Includes analysis of court process, legal professions, and related social institutions.

### 466 Deviant Behavior (3)

Prerequisite: Sociology 101 or consent of instructor. Topics include: drug addiction, sexual deviance, delinquency, alcoholism, mental illness and lifestyle.

### 495 Sociological Internship (3)

Prerequisite: Sociology 101 or consent of instructor. Supervised field experience permitting application of relevant sociological material in practical settings.

### 499 Independent Study (1-3)

Prerequisites: Sociology 101, at least 12 units of sociology and consent of instructor. An individual research project, either library or field. The student must enroll with an instructor whose recognized interests are in the area of the planned independent study. Conferences with the instructor as necessary and the work culminated in one or more papers. May be repeated for credit.

### 501T Seminar: Topics in Societal Structure and Process (3)

Prerequisite: consent of instructor. Analysis of a specialization within the study of society such as: socialization and personality; deviance; social change; institutional structure and process. May be repeated for credit.

### 502A The Research Process (3)

Requires the completion of a research project including such elements as theory construction, hypotheses formation, sampling, survey construction, data collection and data analysis. Instructional fee.

### 502B The Research Process (3)

Prerequisite: Sociology 502A. Problems of social research. Causal inferences, value bias and measurement, construction of scales. Instructional fee.

### 581 Advanced Theories of Social Behavior (3)

Prerequisite: Sociology 301 or equivalent or consent of instructor. Basic elements and key problems in constructing and evaluating sociological theories.

### 596 Community College Symposium (3-6)

Prerequisite: consent of adviser.

Introductory sociology, social problems and marriage and family; teaching preparation.

Includes oral exam.

### 597 Project: Agency Placement (3-6)

Prerequisite: consent of adviser. Twenty hours per week for one semester or 10 hours per week for two semesters. Choice limited by availability of positions which meet the level of supervision and training for which credit may be given. Includes an oral exam conducted by a master's committee.

### 598 Thesis (3)

Prerequisites: acceptance as a candidate for the Master of Arts in Sociology, and approval of topic. Individual research under supervision, reported in a thesis, and defended successfully in an oral examination conducted by a faculty committee.

### 599 Independent Graduate Research (1-3)

Prerequisite: consent of graduate adviser and instructor. Individual research on a library or empirical project, with conferences with instructor as necessary, culminating in one or more papers. May be repeated for credit.

# special education

### INTRODUCTION

The Department of Special Education at California State University, Fullerton provides exemplary training for special education candidates, general education teachers clearing their preliminary credentials, and persons interested in improving techniques to work with at-risk children. The faculty in the Department of Special Education are nationally recognized for their contributions in the field of Special Education. Combined teaching experience represents more than 70

years of classroom contributions. Credential programs in Mild/Moderate Disabilities, Moderate/Severe Disabilities and Early Childhood Special Education are available. Additionally, certification programs are available for Resource Specialist and Early Childhood Special Education. Candidates can earn a master's degree in any of the above areas. The Department of Special Education provides a program that is NCATE-accredited in addition to meeting the Commission on Teacher Credentialing (CTC) requirements. The Department takes pride in meeting all of the Council for Exceptional Children (CEC) recommended program standards.



The department offers full and part-time programs designed to accommodate students who have full-time employment, family responsibilities or wish to resume their university studies leisurely.

The Department of Special Education has moved in the direction of competency (performance-based) program outcomes and is strongly committed to a conceptual knowledge and skill based framework soundly integrated with the philosophies of the university, school, and division.

The University Mission, School Philosophy and Department theme emphasize the active, social nature of learning, the interconnections among ways of learning, the dispositions of inquiry, and the relationship to the larger diverse society. The refined mission and marks indicate the department is both substantive and technical, theoretical and practical, realistic and entrepreneurial.

### MISSION STATEMENT OF THE DEPARTMENT OF SPECIAL EDUCATION

The mission of the Department of Special Education is to develop quality teachers who value lifelong learning. We provide credentials for teachers specializing in:

- Mild/Moderate Disabilities
- Moderate/Severe Disabilities
- Early Childhood Special Education

### **DEPARTMENT HEAD:**

Belinda Dunnick Karge

### **DEPARTMENT OFFICE:**

Education Classroom 379

### **PROGRAMS OFFERED**

Master of Science in Education

Concentration in Special Education

Education Specialist Credentials

Mild/Moderate Disabilities

Moderate/Severe Disabilities

Early Childhood Special Education

Certificates of Competency

Resource Specialist

Early Childhood Special Education

### **FACULTY**

Stephen Aloia, Chaulmaine Fuller, Barbara Glaeser, Margaret Hughes, Belinda Dunnick Karge, Jan Weiner

The program is designed to train educational generalists in inclusive non-categorical approaches for children with heterogeneous special needs. We believe in collaborations with general education, special education, all service providers, parents, and the community. We train teachers in pedagogy that are multiparadigmatic and provides a variety of theoretical perspectives related to teaching. The primary teacher focus should be to meet the individual needs of the child and family. The instructional curriculum provides credential and master's degree candidates with a broad background in the physiological, environmental and social aspects of exceptionality. Candidates will learn effective research based teaching strategies, characteristics, interdisciplinary/collaboration skills, plus transition and positive behavior support, as each establishes a conceptual base of understanding of persons with disabilities. Master's degree programs are available in all areas of specialty.

### **ADMISSION REQUIREMENTS**

- University graduate application/department application
- 2. Three letters of recommendation
- Letter of intent including education philosophy, purpose statement (This is the same as an autobiography.)
- 4. Overall grade point average of 2.75
- 5. Certificate of Clearance
- 6. U.S. Constitution
- 7. Passage of the Multiple Subject
  Assessment for Teachers (MSAT) of the
  National Teacher Examination (PRAXIS)
  or completion of the Multiple Subject
  Matter Preparation (Formerly Waiver)
  program or completion of the single
  subject preparation program (for
  Mild/Moderate, Moderate/Severe programs only) candidates)
- 8. Completion of the California Basic Education Skills Test (CBEST) (For all candidates)
- 9. Satisfactory completion of prerequisite courses:

Special Ed 371 (for all candidates)
Ed Elm 315A and 315B, Child/
AdolescentStudies 325/312 or equivalent
(for those students interested in working
with elementary students)

OR

Ed Sec 310 and Ed Sec 386 (for those students interested in working with secondary students)

Courses on transcripts reflecting Child Development -Birth-8 (for early Childhood majors only)

Field experience with typically developing students (for all programs)

For further information please call the department office (714) 278-3411. The Commission on Teacher Credentialing (CTC) is the agency of California government that certifies the competence of teachers and other professionals who serve in the public schools. On April 5, 1996, CTC adopted new Standards of Program Quality and Effectiveness for the Education Specialist Credential Programs. CTC adopted a policy eliminating the requirement that a general education (multiple or single-subject) be earned as a prerequisite to a special education credential. The Standards were formally signed into law by Gov. Wilson in October, 1997. CSUF is proud to offer the new programs.

### **EDUCATION SPECIALIST CREDENTIALS**

Programs leading to three education specialist credentials are available. They are:

Specialist credential to teach persons with mild/moderate disabilities including specific learning disabilities, mild mental retardation, and other health-impaired and emotional disturbance.

- Specialist credential to teach persons with mild/moderate disabilities including specific learning disabilities, mild mental retardation, and other health-impaired and emotional disturbance
- Specialist credential to teach persons with moderate/severe disabilities including severely developmentally disabled, mentally retarded, multi-handicapped, emotionally disturbed, and autistic
- 3. Specialist credential to teach young children with disabilities

All specialist training programs require a generic component and advanced component, for the credential. Completion of the generic component is prerequisite to admission to advanced specialist component.

The Commission on Teacher Credentialing adopted a policy that requires all special education teaching credential candidates to complete preparation programs for a preliminary (Level I) and professional (Level II) credential. The Level I specialist credential autho-

rizes the holder to work with students across all settings. All persons completing Level I preparation programs are required to obtain a professional clear special education credential (Level II) through an approved university program within five years of the date of issuance of the Level I credential.

Advisement is available to any student seeking an education specialist credential in the Department of Special Education. New students will be assigned an adviser at the time of admission to the Department of Special Education. Students should meet with their adviser during the first semester of enrollment in the Department of Special Education to file a credential study plan. The specific courses needed vary based on student experience. Do not self-advise! It is critical to meet with a department adviser.

The Special Education Specialist Credential consists of three phases:

- 1. A prerequisites phase in which students are introduced to the basic characteristics of the various types of disabilities, make field observation in various settings and experience practices and procedures of the day-to-day world of teaching exceptional students;
- A core-components phase, where the issues and concerns related to statistical assessment and identification of exceptional individuals as well as the legal mandates and regulations of special education law, exploration of the dynamics of disabilities as it relates to families and parents; and transitional and career/vocational and community aspects of special education are covered;
- 3. An advanced specialization phase, in which specific issues related to the area of specialty are addressed, i.e. characteristics and teaching methods courses relating to the specific disability area, including the on-site field support components for all credentials and the resource specialist certificate. Students must finish the prerequisite phase before entering the other two areas. The corecomponents phase and the advanced specialization phases are taken concurrently to allow the teacher to learn about their field of specialization as quickly and efficiently as possible.

Undergraduates anticipating career options in Special Education may take Any 200-300 or 400-level course prior to program admission.

The Department of Special Education is committed to supporting teachers employed under emergency permits or internships.

# MILD/MODERATE AND MODERATE/SEVERE CREDENTIAL

### Level 1

Special Ed 430A Foundations in School Teaching (3)

OR Ed Sec 440S General Pedagogy of Secondary School Teaching (4)

Special Ed 430B Curriculum and Instruction in Elementary (Math, Social Studies, and Science) (1-2)

Special Ed 430C Supervised Fieldwork (2)

Special Ed 433 Language Arts and Reading Instruction in the Public Schools (3)

OR Ed Sec 440R Instruction in Reading for Secondary School Teaching (3)

Special Ed 439A Student Teaching in Elementary School (4-12) OR Ed Sec 449E Externship in Secondary Teaching (3)

Special Ed 439B Seminar in Student Teaching (1-3)

Special Ed 462 Practices and Procedures in Special Education (3)

Special Ed 411 Mainstreaming (3)

Special Ed 421 Working with Families of Individuals with Disabilities (3)

Special Ed 520 Advanced Issues in Measurement and Data Analysis (3)

Special Ed 482A/B Curriculum and Methods-Special Ed. (3)

Special Ed 522 Behavior Problems in the Classroom (3)

Special Ed 531/532 Advanced Seminar: MM/MS (3,3)

Special Ed 491A/B Student Teaching-Special Education (3,3)

OR Special Ed 489 Directed Teaching-Special Education (6)

### Level II

Ed Elm 511 Survey of Educational Research OR alternate course in research assessment (3)

Special Ed 529 Collaborative and Consultative Seminar (3)

Special Ed 533 Seminar: Issues and Trends in Collaborative/Consultative Services (3)

Special Ed 584 Transition, Vocation, and Careers Over the Lifespan

Special Ed 586 Current Trends and Issues in Special Education (3)

Ed Elm 415 Microcomputers in the Elementary Classroom (3)

Health Sci 356 Health Education for Secondary Teachers (3) OR Health Sci 357 Health Education for Elementary Teachers (3)

# EARLY CHILDHOOD SPECIAL EDUCATION CREDENTIALS

### Level I

Special Ed 371 Exceptional Individuals (3)

Special Ed 400 Early Childhood Special Education (3)

Special Ed 421 Working with Families of Individuals with Disabilities (3)

Speech Comm 407 Language Development for Educators (3)

Special Ed 489A Directed Teaching in Special Education (6)

Special Ed 489B Directed Teaching in Special Education (6)

Special Ed 514 Infant Assessment and Intervention (3)

Special Ed 515 Preschool Assessment and Intervention (3)

Special Ed 522 Behavior Problems in the Classroom (3)

Special Ed 535 Seminar in Special Education: Early Intervention (3)

Special Ed 371 Exceptional Individual (3)

### Level II

Ed Elm 511 Survey of Educational Research (3)

OR alternate course in research assessment (3)

Special Ed 529 Collaborative and Consultative Seminar (3)

Special Ed 599 Independent Graduate Research (1-3)

# SPECIAL EDUCATION UNIVERSITY INTERNSHIP

The department currently has a two-year internship program designed to offer support to teachers on the job in local school districts. The interns receive systematic support, guidance and feedback from both the participat-

ing school districts and from university faculty and staff.

### Prerequisites:

- Letter from school district providing starting date of employment for internship
- 2. Completion of Intern Credential application (pick-up in EC 207)
- Acceptance into the Special Education program (both University and Department application)
- 4. Evidence of subject matter competency (for example: MSAT)
- 5. Passage of the California Basic Education Skills Test (CBEST)
- 6. Special Ed 371 The Exceptional Individual
- 7. Completion of all or partial general education coursework

Note: this program is designed for persons with general education teaching credentials or persons who have completed the prerequisites and first 15 units of general education coursework and student teaching in general education.

Special program features include (1) an emphasis on effective teaching strategies in reading and mathematics and (2) specialized training in collaboration skills for the inclusive classroom including positive behavior supports, diversity awareness and curriculum modifications and adaptations for the inclusive classroom.

# MASTER OF SCIENCE IN EDUCATION (SPECIAL EDUCATION)

This program is designed to prepare graduate students to critically analyze and evaluate empirically based research; theoretical constructs and philosophical foundations; and historical, psychological, and sociological issues related to the education of individuals with disabilities. It focuses on analysis and interpretations of policy as related to curriculum, pedagogy, and methodology. Specific emphasis is offered in the areas of Early Childhood, Collaborative-Consultation, Mild/Moderate Disabilities, Moderate/Severe Disabilities, and the Education of the Gifted and Talented. A student enrolled in the Level I and Level II coursework only needs one additional course to complete the Master's degree.

### Admission to Graduate Standing: Conditionally Classified

Requirements include a baccalaureate degree from an accredited institution and a grade-point average of at least 2.75 in the last 60 semester units attempted (see the "Graduate Regulations" section of this catalog for policies and procedures regarding admission).

### Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing upon the development of an approved study plan: (1) a grade-point average of 2.75 or better in all previous academic and related work; (2) an approved major; (3) completion of Special Ed 371 Exceptional Individual; (4) satisfactory interview and autobiography.

### Study Plan

Core Classes (15 units)

Ed Elm 511 Survey of Educational Research

OR alternate course in research/assessment (3)

Special Ed 522 Behavioral Problems in the Classroom (3)

Special Ed 529 Collaborative and Consultative Seminar (3)

Special Ed 530 Graduate Seminar in Giftedness and Creativity

OR Special Ed 531 Seminar; Individuals with Moderate/Severe Disabilities (3)

OR Special Ed 532 Seminar: Individuals with Mild/Moderate Disabilities (3)

OR Special Ed 535 Seminar in Special Education: Early Intervention

Special Ed 586 Current Trends and Issues in Special Education (3)

### Electives (12 units)

Adviser-approved elective courses include a minimum six units 500-level, maximum six units 400-level and maximum six units from other departments.

Project/Thesis (3 units)

Special Ed 597 Project (3)

OR Special Ed 598 Thesis (3)

# RESOURCE SPECIALIST CERTIFICATE OF COMPETENCY

The curriculum for the Resource Specialist certificate of competency is designed to prepare candidates having approved entry level skills and professional preparation to assume the role as resource specialists in programs serving special education students. The certificate program meets the competencies set forth by the California Commission on Teacher Credentialing as well as additional standards deemed appropriate by the faculty of the Department of Special Education, other university personnel and community advisory board members. Students desiring this certificate without enrolling for a degree or credential should apply for admission to the university as postbaccalaureate with a Resource Specialist objective.

### Prerequisites

- 1. A 3.0 grade-point average in teacher presentation coursework.
- Passage of the California Basic Education Skills Test (CBEST).
- Appropriate Advanced Specialist Credential in Special Education.

Students should contact a department adviser prior to initiating a program for the R.S.P. Certificate.

Note: Verification of three years of successful teaching involving regular class and special education experience is necessary before the certificate will be granted.

# CERTIFICATE IN EARLY CHILDHOOD SPECIAL EDUCATION

This fifth year professional certificate program is designed to meet the standards and competencies adopted by California's Commission on Teacher Credentialing. This two-semester program provides professional training to enable students to teach in Early Childhood Special Education programs for children with special needs ages birth through five years. Note: Only nine units of graduatelevel coursework from another institution can be petitioned to fulfill equivalent course requirements in the certificate program.

### Prerequisites

- Baccalaureate degree in an interdisciplinary field related to Special Education
   (e.g. Child Development, Nursing,
   Human Services, Psychology, Kinesiology,
   and degree programs with Adapted
   Physical Education emphases, etc.) with a
   minimum grade-point average of 2.75.
- Background knowledge in typical child development and experience with young children.

Core Requirements (21 units)

Special Ed 400 Early Childhood Special Education (3)

Special Ed 421 Working with Families of Individuals with Disabilities (3)

Special Ed 490 Field Studies: Special Education (3,3)

Special Ed 514 Infant Assessment and Intervention (3)

Special Ed 515 Preschool Assessment and Intervention (3)

Special Ed 535 Seminar in Special Education: Early Intervention (3)

Electives (9 units)

The nine elective units must meet the following criteria: (1) courses will have to diversify and expand upon the student's previous higher education coursework or degree program, and (3) all selected coursework will have to be approved by the student's program adviser.

### SPECIAL EDUCATION COURSES

# 250 Discrimination Issues for Persons with Disabilities (3)

A critical overview of issues related to prejudice, misperceptions, and stereotypes of individuals with disabilities. A special feature of the course is the opportunity to view numerous contemporary films and videos on persons with disabilities.

### 371 Exceptional Individual (3)

Provides overview of all areas of exceptionalities and topical review of characteristics of individuals with exceptional needs. A special feature is the opportunity to participate in various simulations and activities designed to enhance the understanding of diversity in our society. Course includes an opportunity to work in the field with persons with disabilities.

### 400 Early Childhood Special Education (3)

Prerequisite: Child Development 320 or equivalent course in normal infant and early childhood development. Provides characteristics of young children ages birth-5 years with disabilities, developmental delays and those "at risk" for developmental delays. Rationale for early intervention and preschool programs, program models, and service delivery approaches will be presented.

### 411 Mainstreaming (3)

Designed to assist school personnel to implement the principle of "Least Restrictive Environment." Emphasis will be placed upon techniques and strategies to modify regular classrooms to accommodate individuals with disabilities. This course fulfills the state requirement for Clear Credential.

# 421 Working with Families of Individuals with Disabilities (3)

Prerequisite: Special Ed 371 or consent of instructor. Examines characteristics of family systems; functional assessment of family needs, concerns, and priorities. Focuses on effective communication, collaborative skills and identification of community resources.

# 430A Foundations in School Teaching (3) (Same as Ed Elm 430A)

# 430B Curriculum and Instruction (1-2) (Same as Ed Elm 430B)

# 430C Supervised Fieldwork (2) (Same as Ed Elm 430C)

### 433 Language Arts and Reading Instruction (3)

(Same as Ed Elm 433)

### 439A Student Teaching in Elementary School (4-12)

(Same as Ed Elm 439A)

# 439B Seminar in Student Teaching (1-3) (Same as Ed Elm 439B)

439C Intern Teaching (3) (Same as Ed Elm 439C)

# 462 Practices and Procedures in Special

Education (3)

Prerequisite: Special Ed 371 or consent of instructor. Critically examines current laws, procedures, and related practices in Special Education from birth through 21 years.

Emphasizes issues of multiculturalism; generic assessment, curriculum and instructional strategies; federal, state, and community resources.

### 463 Characteristics of Individuals with Mild/Moderate Disabilities (3)

Prerequisites: Special Ed 371 or consent of instructor. In-depth examination of individuals with diverse cognitive, social-emotional, and physical characteristics and their educational needs.

# 464 Characteristics of Individuals with Moderate/Severe Disabilities (3)

Prerequisite: Special Ed 371 or consent of instructor. In-depth examination of individuals with diverse cognitive, social-emotional, behavioral and physical characteristics and their educational needs.

### 481 Measurement in Special Education (3)

Prerequisite: Special Ed 371, 463, or 464 recommended. Presents the practical and theoretical aspects of measurement and assessment in special education. Focuses on formal and informal measures as they relate to instructional programs for individuals with special needs.

### 482A Curriculum and Methods for Individuals with Mild/Moderate Disabilities (3)

Prerequisites: Special Ed 462 and 463. Presents curriculum development, instructional methodology and materials for teaching individuals with mild/moderate disabilities. Focuses on instructional strategies permitting access to the Core curriculum.

### 482B Curriculum and Methods for Individuals with Moderate/Severe Disabilities (3)

Prerequisite: Special Ed 462 and 464.

Presents curriculum development, instructional methodology and materials for teaching individuals with moderate/severe disabilities.

Includes functional academics, life skills, and adaptations to Core curriculum.

# 489A Directed Teaching in Special Education (A) (6)

Prerequisite: Special Ed 371, 421, 462, 463, 481, 482A and Department approval. Directed teaching in department-approved Mild/Moderate placement to meet California's Mild/Moderate credential requirements. Must be taken Credit/No Credit.

# 489B Directed Teaching in Special Education (B) (6)

Prerequisites: Special Ed 371, 421, 462, 464, 481, 482B and Department approval. Directed teaching in department-approved Moderate/Severe placement to meet California's Moderate/Severe credential requirements. Must be taken Credit/No Credit.

### 490 Field Studies: Special Education (1-3)

Prerequisite: Special Ed 371 or Special Ed 400 and consent of Department Chair.

Supervised practicum/field or clinical experience with exceptional individuals related to skills and competencies specified for the completion of University- or State-approved endorsements or certificates. May be repeated for credit. Must be taken Credit/No Credit.

### 496 Senior Educational Practicum (1-3)

Prerequisites: approval by department chair and instructor. Provides for an advanced level of educational practicum within school and/or agency settings.

### 499 Independent Study (1-3)

Prerequisites: senior or graduate standing, department chair approval, and consent of instructor. Supervised individual studies under the direction of faculty member.

Experimental, research or creative projects.

### 514 Infant Assessment and Intervention (3)

Prerequisites: Child Development 320, Special Ed 400 or equivalent. A transdisciplinary model for assessment of infants birth to three years of age at risk for developmental delays and their families will be presented. Culturally sensitive assessments and familyfocused interventions used to develop Individualized Family Service Plans (IFSP) will be presented.

### 515 Preschool Assessment and Intervention (3)

Prerequisites: Child Development 320, Special Ed 400 or equivalent, Special Ed 514. An assessment of preschool-age children at risk for developmental delays and their families using both formal and informal testing instruments. Translation of child and family assessments into preschool special education program planning will also be discussed.

### 520 Seminar: Advanced Issues in Measurement and Data Analysis (3)

Prerequisites: Special Ed 481 and 510. Critically examines the application of measurement and data analysis with emphasis on single subject, group and qualitative research.

### 522 Behavior Problems in the Classroom (3)

Prerequisite: Special Ed 371. Focuses on developing an educational approach to supporting positive behaviors in the classroom and community. Emphasis on regulations mandated by Hughes AB 2386. Behavior Intervention Case Manager (BICM) certificate provided to qualified personnel.

### 528 Advanced Special Education Seminar: Curriculum, Assessment, and Instructional Management (3)

Prerequisites: Special Ed 463 or 464. Presents collaborative and consultative strategies and techniques for delivering direct and indirect services to individuals with disabilities in a continuum of settings.

# 529 Collaborative and Consultative Seminar (3)

Prerequisites: Special Ed 463 or 464, and 528. Provides training in staff development, theory and communication skills needed to work with decision-making groups.

# 530 Graduate Seminar in Giftedness and Creativity (3)

Prerequisite: Special Ed 463 or consent of instructor. An examination of varieties of higher cognitive functioning and those characteristics or performances described as creativity. Focus on ways to enhance skills in analysis, synthesis, evaluation, creative problem solving and divergent productions.

### 531 Seminar: Individuals with Moderate/Severe Disabilities (3)

Prerequisite: Special Ed 371, 464 recommended or equivalent. Analysis of selected issues with major emphasis on independent investigation into the contributions of contemporary theory and research and the review of the emerging trends.

# 532 Seminar: Individuals with Mild/Moderate Disabilities (3)

Prerequisites: Special Ed 371, 463 recommended or equivalent. Analysis of selected issues with major emphasis on independent investigation into the contributions of contemporary theory and research and the review of the emerging trends.

### 533 Seminar: Issues and Trends in Collaborative/Consultative Services (3)

Prerequisite: Special Ed 528 and 529. Investigates contemporary research and practices as they apply to collaborative and consultative services in school and agency settings.

# 535 Seminar in Special Education: Early Intervention (3)

Prerequisites: graduate status and Special Ed 400 or equivalent. A seminar emphasizing the theoretical bases, research related to assessment and service delivery approaches, and current issues and trends in early childhood intervention.

### 584 Transition, Vocation, and Careers Over the Lifespan (3) (Formerly 484)

Prerequisite: Special Ed 371 or 411.
Focuses on the development of curriculum and methods addressing transition, vocation, career and social competency issues from infancy to adulthood.

# 586 Current Trends and Issues in Special Education (3)

Prerequisites: graduate status and consent of instructor. Examines philosophical, social, economical, and educational issues which underlie decision-making with respect to curriculum and methods in special education.

### 597 Project (1-3)

Prerequisite: consent of instructor. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

### 598 Thesis (1-3)

Prerequisite: consent of instructor.

Conducts individual research; conferences with the instructor culminating in a thesis.

### 599 Independent Graduate Research (1-3)

Prerequisite: consent of instructor. Independent inquiry. For qualified graduate students.

# speech

### INTRODUCTION

Majors in the Department of Speech Communication study human communication as part of a liberal arts and social sciences education and in preparation for a variety of career choices. Students with communication background studies and training are: prepared to understand the roles communication plays in human interaction; skilled in facilitating and analyzing individual, small group, and public communication processes; experienced in planning and managing pro-

grams that improve the quality of communication; sensitized to cultural and pathological differences that influence communication effectiveness; and equipped to apply scientific methods and technical procedures to the study of communication improvement and competencies.

The Department of Speech Communication offers undergraduate and graduate degree programs in both communicative disorders and speech communication.

Instruction in Communicative Disorders has four specific goals: to discover relationships among human communication and other human behaviors; to provide students with an understanding of the communication process so they can evaluate normal and



abnormal deviations; to provide theoretical understanding and functional skills that enable the clinician-in-training to diagnose and treat disorders of speech, voice, language and hearing; and to develop graduate professional practitioners of speech-language pathology capable of serving in clinics, community centers, hospitals, private practice and school settings.

Instruction in Speech Communication has four specific goals: to discover relationships among human communication and other human behaviors; to provide students with an understanding of the communication process enabling them to evaluate and affect their communication environments; to improve the quality of human communication; and to facilitate intellectual, social and political maturity by applying principles of communication. Students are prepared for careers as communication specialists in business, public relations, education and other professions requiring a high level of communication competencies, such as the law and the ministry, and for doctoral level studies in speech communication.

### FACULTY

K. Jeanine Congalton, Michael Davis, Robert Emry, Joyce Flocken, Jeanne Flora, Robert Gass, William Gudykunst, Mary Blake Huer, Kurt Kitselman, Edith Li, Elizabeth Mechling, Norman Page, John Reinard, Gary Ruud, Terry Saenz, Arden Thorum, Stella Ting-Toomey, Kenneth Tom, Richard Wiseman, Toya Wyatt.

### **DEPARTMENT CHAIR**

Robert Emry

### **DEPARTMENT OFFICE**

Education Classroom 199

### **SPEECH & HEARING CLINIC**

Education Classroom 190

### **PROGRAMS OFFERED**

Bachelor of Arts in Communicative Disorders

Master of Arts in Communicative
Disorders

Clinical Rehabilitative Services Credential
(CRSC) with Special Class
Authorization (SCA)

Bachelor of Arts in Speech Communication

Minor in Speech Communication

Master of Arts in Speech Communication

### **ADVISERS**

Undergraduate:

Toya Wyatt, Communication Disorders Norman Page, Speech Communication

Graduate:

William Gudykuust, Speech Communication

Michael Davis, Communicative Disorders

### **PROFESSIONAL INFORMATION**

### Accreditation

The Communicative Disorders program is fully accredited by the American Speech-Language-Hearing Association (ASHA).

Graduate study in this program leads to certification in speech-language pathology with ASHA (CCC-SLP).

The CCC-SLP is awarded by the American Speech-Language-Hearing Association to persons who (a) complete the M.A. Degree in speech-language pathology, (b) complete the required clinical practicum by taking prescribed combinations of clinical practicum courses listed in Appendix 4, (c) pass the National Examination in Speech-Language Pathology, (d) successfully complete a Clinical Fellowship Year, and (e) submit the appropriate application materials to the American Speech-Language-Hearing Association. All students should be familiar with the requirements for the CCC-SLP. All students should obtain a copy of the latest ASHA Membership and Certification Handbook during the last year of their graduate studies, and they should read all materials carefully. Their advisors are not responsible for informing students of ASHA requirements beyond those that are related directly to selection of classes and clinical practicum courses. Copies of the Handbook are available from the Graduate Assistant in the CSUF Speech and Hearing Clinic or directly from ASHA at the following address and telephone number:

American Speech-Language-Hearing Association Membership and Certification Section 10801 Rockville Pike Rockville, Maryland 20852 Telephone (301) 897-5700

### Licensure

The speech-language pathology license is required to work as a speech-language pathologist in all settings in California except for the public school and in certain exempt

federal employment settings. The license is awarded by the Speech-Language Pathology and Audiology Examining Committee (SPAEC) of the Medical Board of California to those who (a) complete the M.A. Degree in speech-language pathology, (b) complete the required clinical practicum by selecting from among the clinical practicum courses listed in Appendix 4, (c) pass the National Examination in Speech-Language Pathology, (d) successfully complete a Required Professional Experience (RPE), and (e) submit the appropriate application materials to SPAEC.

Although students will have met or exceeded the academic and clinical practicum requirements for licensure in California by the time they complete their M.A. degree and the last of the clinical practicum courses that are required for the Certificate of Clinical Competence in Speech-Language Pathology (ASHA), they should still become familiar with the specific requirements for licensure during their last year of graduate studies. Their advisors are not responsible for informing students of requirements for licensure beyond those that are related directly to selection of classes and clinical practicum courses. A copy of the "Student Manual for Licensure in Speech Pathology and Audiology" may be obtained from the Graduate Assistant in the CSUF Speech and Hearing Clinics or directly from SPAEC at the following address and telephone number:

Speech Pathology & Audiology Examining Committee 1434 Howe Avenue, Suite 86 Sacramento, CA 95825-3240 Telephone (916) 263-2666

### Credential Information

As an addition to the degree in Communicative Disorders, the Speech Communication Department offers credential programs in Clinical Rehabilitative Services and in Clinical Rehabilitative Services with a Special Class Authorization seal approved by the Commission for Teacher Credentialing (CTC).

### Awards in the Department of Speech Communication

The following awards were established by family, friends and colleagues of the designees in memory of their commitment and contributions to students engaged in the study of human communication.

These awards provide recognition and/or financial assistance to outstanding students majoring in Speech Communication or Communicative Disorders.

The Seth A. Fessenden Award

The Herbert W. Booth Award

The Herbert W. Booth Outstanding Senior Award

The Philip J. Schreiner Award

The Lee E. Granell Award

The Wayne Brockriede Award

The John Scott McKay Textbook Award

### Graduate Assistantships and Fellowships

The following appointments are awarded to outstanding graduate students in the form of competitively selected assistantships and lectureships:

Clinical Graduate Assistants

Graduate Assistants in Forensics

Graduate Assistants in Research

Lecturers in Speech Communication

# BACHELOR OF ARTS IN COMMUNICATIVE DISORDERS

Basic requirements: 42 units minimum

### Sophomore Level (6 units)

Speech Comm 241 Introduction to Phonetics (3)

Speech Comm 242 Introduction to Communicative Disorders (3)

### Junior Level (15 units)

Speech Comm 300 Introduction to Research in Speech Communication (3)

Speech Comm 307 Speech & Language
Development (3)

Speech Comm 344 Anatomy & Physiology of Speech & Hearing (3)

Speech Comm 350 Speech & Hearing Science (3)

Speech Comm 352 Child Language and Phonological Disorders (3)

### Senior Level (18 units)

Speech Comm 461 Audiology & Audiometry (3)

Speech Comm 465 Aural Rehabilitation (3)

Speech Comm 472 Voice & Craniofacial Disorders (3)

Speech Comm 474 Neurology & Neurogenic Communicative Disorders (3)

Speech Comm 475 Fluency Disorders (3)

Speech Comm 476 Clinical Methods and Procedures (3)

### Electives (3 units)

Speech Comm 302 Introduction to Manual Communication (3)

Speech Comm 308 Quantitative Research Methods (3)

Speech Comm 312 Intermediate Sign Language (3)

Speech Comm 345 Communication & Aging (3)

Speech Comm 404 Communicative
Disorders of the Bilingual/Multicultural
Child (3)

Speech Comm 410 Teaching Language Handicapped Children (3)

Speech Comm 450 Acoustic Phonetics (3)

# BACHELOR OF ARTS IN SPEECH COMMUNICATION

Basic Requirements: 42 units minimum

### Core Requirements (18 units)

Speech Comm 102 Public Speaking (3)

Speech Comm 200 Human Communication (3)

Speech Comm 236 Essentials of Debate (3)

Speech Comm 300 Introduction to

Research (3)

Speech Comm 308 Quantitative Research Methods (3)

Speech Comm 320 Intercultural Communication (3)

### Theoretical Core Requirements (9 Units)

Speech Comm 313 Interpersonal
Communication Theory (3)
OR Speech Comm 332 Processes of
Social Influence (3)

Speech Comm 324 Small Group Communication (3)

OR Speech Comm 326 Organizational Communication Dynamics (3)

Speech Comm 330 Rhetoric of Popular Culture (3)

OR Speech Comm 335 Advanced Argumentation (3)

### Electives (15 units)

Students choose 15 units of Speech Communication adviser-approved coursework to form one of the following emphases:

Argumentation and Persuasion Emphasis

Choose from Speech Comm 330, 332, 334, 335, 337, 338, 420, 430, 432, 437, 438, 492.

Interpersonal Emphasis

Choose from Speech Comm 220, 313, 324, 332, 360, 413, 420, 437, 492.

Intercultural Emphasis

Choose from Speech Comm 220, 313, 360, 420, 422, 437, 492.

Organization Emphasis

Choose from Speech Comm 220, 324, 325, 326, 333, 334, 420, 433, 437, 492.

Communication Studies Emphasis

Choose 15 hours of adviser-approved courses from at least two of the other four areas.

### MINOR IN SPEECH COMMUNICATION

Basic Requirements: 21 units of adviserapproved courses in speech communication.

### MASTER OF ARTS IN COMMUNICATIVE DISORDERS AND IN SPEECH COMMUNICATION

The Master of Arts in Communicative Disorders (speech-language pathology and audiology), accredited by the Council of Academic Accreditation of the American Speech-Language-Hearing Association since 1969, is designed: (1) to provide students with graduate, professional level studies covering the broad field of communicative disorders; (2) to provide students with opportunities to observe, learn and serve communicatively impaired clients within a wide range of clinical facilities, both oncampus and off-campus; and (3) to train students to assess, diagnose and prescribe therapy plans, and to function as therapists for selected types and populations of the communicatively impaired.

The Master of Arts in Speech
Communication is designed for students
who have exceptional interest in and aptitude
for study in the area of communication
theory and process. The objectives of the
degree include the following: to improve the
student's academic and professional competence, to prepare the student for advanced
graduate work toward the doctoral degree, to

develop the student's research capabilities, to contribute to improvement in teaching or clinical skills, and to increase the student's knowledge in the specializations appropriate to the particular profession. The student is expected to demonstrate a high degree of intellectual competence and scholarly discipline, to evaluate critically, and to demonstrate mastery of the field of concentration.

### Admission to Graduate Standing: Conditionally Classified

Applicants must meet the university requirements for admission to conditionally classified graduate standing: a baccalaureate from an accredited institution and a gradepoint average of at least 2.5 in the last 60 semester units attempted.

Applicants for the Communicative Disorders Program must have a baccalaureate in communicative disorders or the equivalent. The equivalent consists of a prescribed list of courses which total 36 semester units and which form an appropriate background for graduate studies. Applicants for Speech Communication are required to have a baccalaureate in speech communication or an allied field or complete nine units of approved background studies in speech communication.

In addition, the following factors will be taken into consideration by the Graduate Committee in determining who shall be admitted to the program:

- 1. Grade-point average.
- 2. Letters of recommendation (preferably on department forms).
- 3. Professional objectives as presented in a student letter of intent.

### Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements, may be granted classified graduate standing upon the development of an approved study plan:

- Enrollment in Speech Comm 500,
   Research in Speech Communication, is required within the first nine units of graduate work included on the study plan.
- Completion of the study plan with 30
  units of studies approved by an adviser
  and the Department Graduate Committee.

### Study Plan

Requirements for the Master of Arts degree in either Communicative Disorders or Speech Communication consists of (1) a minimum of 30 units of study approved by the department Graduate Committee, (2) at least 15 units in one of the major areas, (3) successful completion of comprehensive examinations and a thesis (six units) or a directed graduate study research project (three units). The M.A. in Speech Communication study plan may include up to six units of adviser-approved elective coursework outside the department.

Students in the Communicative Disorders program must complete one course in research methods (Speech Comm 500), one course in neurology (Speech Comm 542), one course in child language disorders (Speech Comm 577), one course in neurogenic disorders (Speech Comm 543 or 544), one course in alternative communication or multicultural issues (Speech Comm 554 or 576) and one course in speech disorders (Speech Comm 450, 570, 571, 573); phonological disorders (Speech Comm 574) is an optional course.

Students in the Speech Communication program must complete one course in theory (Speech Comm 536), one course in research methods (Speech Comm 500), and a minimum of three additional courses in 500-level seminars.

For further information, consult the Department of Speech Communication.

### CLINICAL REHABILITATIVE SERVICES CREDENTIAL

Speech-pathologists who wish to practice in the public school setting are required to obtain an M.A. Degree in Communicative Disorders and the Clinical Rehabilitative Services Credential, which they may declare as an objective when they apply for admission to the graduate program. The credential may also be declared as an objective at a later time as long as the student has maintained continuous enrollment in the graduate program. After the student leaves the graduate program, re-admission is required in order to fulfill requirements for the credential. It is, therefore, strongly recommended that students complete the credential while working on the M.A. Degree unless they are absolutely certain that they will not later wish to work in the public schools.

The requirements for the CRSC are listed below. The required courses and practica must be completed with a grade-point average of 2.50, and at least a "C" must be earned for each course and practicum. Students are required to complete clinical clock hours according to the requirements of the American Speech-Language-Hearing Association. In addition, 100 of the 350 supervised clock hours must be completed at a school site or its equivalent. The hours must be supervised in all cases by persons holding ASHA Certificate of Clinical Competence in Speech-Language Pathology and the appropriate state license. The supervisor of the public school practicum must also hold the Clinical Rehabilitative Services Credential. If equivalencies have been granted for a clinical practicum that was completed at another university, appropriate documentation of clinical clock hours completed at the other institution must be provided to the Communicative Disorders Program so that it can be placed in the student's clinical practicum file.

Finally, the student must demonstrate proficiency in reading and writing through passing the University Examination in Writing Proficiency (EWP) and through obtaining a C or better in Speech Comm 300 Introduction to Research in Speech Communication. Alternatively, the student may demonstrate reading and writing proficiency by obtaining a C or better Speech Comm 500 Research in Speech Communication. Students must also take the CBEST Exam prior to entering the credential program. The Credential Coordinator should be contacted by the students early in their program to review requirements and give further information on the requirements for the credential.

# Academic Requirements in the Major (62 units)

Speech Comm 241 Introduction to Phonetics (3)

Speech Comm 242 Introduction to Communicative Disorders (3)

Speech Comm 300 Introduction to Research in Speech Communication (3)

Speech Comm 307 Speech & Language Development (3)

Speech Comm 344 Anatomy & Physiology of Speech and Hearing (3)

Speech Comm 350 Speech and Hearing Science (3)

Speech Comm 352 Child Language and Phonological Disorders (3)

Speech Comm 404 Communicative
Disorders of the Bilingual/ Multicultural
Child (3)

Speech Comm 461 Audiology & Audiometry (3)

Speech Comm 465 Aural Rehabilitation (3)

Speech Comm 472 Voice & Craniofacial Disorders (3)

Speech Comm 474 Neurology and Neurogenic Communicative Disorders (3)

Speech Comm 475 Fluency Disorders (3)

Speech Comm 476 Clinical Methods & Procedures (3)

Speech Comm 490 Seminar: Speech & Hearing Service in Schools (2)

Speech Comm 542 Neurologic Bases of Speech and Language (3)

Speech Comm 571 Seminar in Fluency Disorders (3)

Speech Comm 573 Seminar in Voice Disorders (3)

Speech Comm 574 Seminar in Phonological Disorders (3)

Speech Comm 576 Seminar in Augmentative & Alternative Communication (3)

Speech Comm 577 Seminar in Child Language Disorders (3)

### Related Areas (6 units)

Special Ed 371 Exceptional Individual (3)

Psychology 361 Developmental Psychology (3)

### Clinical Practicum (13 units)

Speech Comm 458 Speech & Language Disorders in Children (3)

Speech Comm 489A Public School Practicum in Communicative Disorders (4)

Speech Comm 558A Speech & Language Disorders in Adults (3)

Speech Comm 559A Advanced Clinical Practicum in Communicative Disorders (3)

### CLINICAL REHABILITATIVE SERVICES CREDENTIAL WITH SPECIAL CLASS AUTHORIZATION

This authorization is awarded to students who have earned, either previously or concurrently, the Clinical Rehabilitative Services Credential. Those who hold the SCA may teach in classrooms for the severely communicatively handicapped in the public school system. The SCA may be declared as an objective upon application to the graduate program in communicative disorders. It may also be declared as an objective at a later time as long as the student has maintained continuous enrollment in the graduate program. After the student leaves the graduate program, re-admission is required in order to fulfill requirements for the SCA. It is, therefore, strongly recommended that students complete the requirements for the SCA while working on the M.A. Degree and the Clinical Rehabilitative Services Credential unless they are absolutely certain that they will not later wish to work in the severely communicatively handicapped classroom.

In addition to all the requirements for the Clinical Rehabilitative Services Credential, students must complete the following courses and student teaching practicum with a grade point average of 2.50 and at least a C in each.

Reading 508 Teaching Reading Language

Arts (3)

Special Ed 482A Curriculum and Methods for the Learning Handicapped (3)

Speech Comm 410 Teaching Language Handicapped Children (3)

Ed Elm 532 Graduate Studies in Elementary Education: Mathematics (3)

### **Directed Teaching Practicum**

Speech Comm 489B Public School Practicum in the Special Class (4)

### SPEECH COMMUNICATION COURSES

# 100 Introduction to Human Communication (3)

An introduction to theory and practice of interpersonal communication. Practice in the development of skills for improving the quality of communication is required.

### 102 Public Speaking (3)

Theory and presentation of public speeches, including an analysis of determinants of comprehension and attitude formation; selection and organization of speech materials, development of delivery skills and evaluation of message effectiveness. Student presentations required. Participation in research projects. (CAN SPCH 4)

### 138 Forensics (2)

Prerequisite: consent of instructor.

Investigation and practice in the background, format procedures and evaluation criteria of the various forensic events.

Students must participate in at least two intercollegiate speech tournaments. May be repeated for credit. (More than 6 hours of classwork for each unit of credit)

### 200 Human Communication (3)

Theories and competencies in interpersonal, small group, public, organizational and intercultural communication. Variations in communication process across contexts is investigated.

### 220 Interpersonal Conflict Management (3)

Examination of the nature, causes and structure of interpersonal conflict; communication strategies exhibited in conflict; and intervention principles for conflict management. Conflict management theory will be applied to conflicts within marriages, small groups, organizations and intercultural relationships.

### 235 Essentials of Argumentation (3)

Introduction to methods of critical inquiry and advocacy. Identifying fallacies in reasoning, testing evidence and evidence sources, advancing a reasoned position, and defending and refuting arguments. Analysis and evaluation of oral and written arguments. (CAN SPCH 6)

### 236 Essentials of Debate (3)

Theory and practice in the activity of debate, emphasizing skill in analysis and reasoning, researching and organizing evidence, evaluating stock issues relating to policy and value propositions, and engaging in regulation.

### 241 Introduction to Phonetics (3)

The analysis and description of speech at the segmental and suprasegmental levels.

Includes practice using the International Phonetic Alphabet for broad and narrow transcription. Overview of speech production.

# 242 Introduction to Communicative Disorders (3)

A broad overview of disorders of communication including classification and prevalence. Educational and training requirements for speech-language pathology and audiology, professional settings and opportunities, ethical considerations, clinical observations.

# 300 Introduction to Research in Speech Communication (3)

Prerequisite: Speech Comm 100 or 200, open only to speech communication majors. Understanding and using professional literature in speech communication and using that literature to generate a formal research paper. A passing grade fulfills the course requirement of the university upper division baccalaureate writing requirement for speech communication majors and communicative disorders majors.

### 301 Liberal Studies in Communication Processes (3) (Formerly 305)

Introduction to interdisciplinary study and its relationships to communication theory. How communication occurs in various disciplines, Theories about the nature of language and how this influences the pursuit of learning. No credit for speech communication majors.

# 302 Introduction to Manual Communication (3)

Prerequisite: consent of instructor. The basic principles of manual com-munication and sign language systems; finger-spelling and the development of basic sign language vocabulary in Pidgin Sign English (PSE).

### 303 Biology of Human Communication (3)

Prerequisite: Biology 101 or Psychology 101. The exploration of the biology and evolution of speech and language. Includes speech production, evolution and development; speech perception; language, hemispheric specialization, clinical studies; current methods in neurolinguistics; and plasticity and aging.

### 307 Speech and Language Development (3)

Prerequisite: General Education I.A. or Linguistics 106 or equivalent. Normal acquisition of phonology, morphology, semantics, syntax and pragmatics in children. Includes the biological, cognitive, and social bases of language acquisition. Meets the requirements for specialized preparation to serve as a teacher of exceptional children. (Same as Linguistics 307).

### 308 Quantitative Research Methods (3)

Prerequisite: Speech Comm 100 or 200.

Current perspectives in empirical research methodology in the discipline of Speech Communication. Experimental designs, common statistical tests and the use of the computer as a research tool.

### 312 Intermediate Sign Language (3)

Prerequisite: Speech Comm 302 or consent of instructor. A review of basic sign language. Additional sign vocabulary acquisition and improvement of basic expressive and receptive skills in the simultaneous method of communication, utilizing traditional and SEE signs.

### 313 Interpersonal Communication Theory (3) (Formerly 415)

Prerequisite: Speech Comm 100 or 200, or consent of instructor. The behavioral and humanistic approaches to theories of interpersonal communication. Functions of communication which influence interpersonal relationships, including communicator characteristics, information exchange, situational demands and interpersonal evaluations.

### 320 Intercultural Communication (3)

Prerequisite: Speech Comm 100.

Communication problems that result when members of different cultures communicate. How interpersonal communication can overcome differences in cultures' perceptions of communication's functionality, value orientations, nonverbal behavior, language, epistemologies and rhetorics.

### 322 Study Abroad Seminar (1)

Co-requisite: Enrollment in the CSU International Programs or California State University, Fullerton Exchange Programs. An orientation to living in another culture for students studying abroad. The emphasis is on the intercultural adaptation process (e.g., culture shock) and understanding host nationals' behavior.

# 324 Communicating in Teams and Groups (3)

Prerequisite: Speech Comm 100 or 200. Application of small group and inter-personal communication theory and behavioral research findings. Communication facilitation among individuals in task realization, including interpersonal needs, leadership, norms, roles, verbal and nonverbal messages, and group systems and procedures.

# 325 Interviewing: Principles and Practices (3)

Prerequisite: Speech Comm 100 or consent of instructor. Principles and practices of interviewing processes. Consideration of appraisal, counseling, employment, exit, journalistic, persuasive and survey types of interviews. Case analyses, simulations and community fieldwork required.

# 326 Organizational Communication Dynamics (3)

Prerequisites: Speech Comm 100 or 200 or consent of instructor. The inter-relationships between management and communication theories. The microsystems and macrosystems within an organization are emphasized in terms of intra-personal, interpersonal, small group and organizational communication theories.

### 330 Rhetoric of Popular Culture (3)

Co-requisite: Speech Comm 200.

Rhetorical theories as they apply to contemporary communication events. Various perspectives of rhetorical theory are utilized to further understanding of communication in today's society.

### 332 Processes of Social Influence (3)

Prerequisite: Speech Comm 100 or 200.

Major theories of communication concerned with influence and persuasion in society.

Communication effectiveness through strategic application of theory to affecting change and evaluating appeals for change by others.

# 333 Communication in Business and Industry (3)

Prerequisite: Speech Comm 100 or 200.

Human behavior, structural demands and communication within organizations.

Application of theory and behavioral research as a framework for generating managerial communication competencies such as interviewing, briefings, conference leadership and intergroup coordination.

### 334 Persuasive Speaking (3)

Prerequisite: Speech Comm 102 or equivalent. Strategies and tactics appropriate to leading social policy persuasive campaigns. Emphasis on analysis of receiver variables, progressive use of persuasive materials, question and answer techniques, and the development of personal influence. Student presentations required.

### 335 Advanced Argumentation (3)

Prerequisite: Speech Comm 236 or equivalent. Argument as applied to advocacy; logic and evidence as related to analysis of significant issues.

# 337 Communication in the Legal Arena (3)

Prerequisite: an upper-division writing requirement course. The influence of communication behaviors on civil and criminal judicial processes. A review and evaluation of research into communication variables and legal practices, from interviewing to closing arguments. Courtroom observation required.

### 338 Intercollegiate Forensics (2)

Prerequisite: consent of instructor.

Directed activity in debate and other forensic events. Participation in intercollegiate speech competition is required for credit. May be repeated for credit. (More than 6 hours of classwork for each unit of credit.)

# 344 The Anatomy and Physiology of Speech and Hearing (3)

Anatomy and physiology of the speech and hearing mechanism. The processes of respiration, phonation, articulation-resonance, and hearing are included.

### 345 Communication and Aging (3)

Prerequisite: Speech Comm 100 or consent of instructor. Communicative changes found in older adults including normal and pathologic changes in the physiological and behavioral aspects. Topics include diagnosis, rehabilitative strategies, social implications, and health care systems.

### 350 Speech and Hearing Science (3)

Prerequisites: Speech Comm 241 and 344. Introduction to physiology and acoustics of speech production including voice, resonance, and individual speech segments. Students are introduced to instrumentation for the acoustic and perceptual analysis of speech.

# 352 Child Language and Phonological Disorders (3)

Prerequisites: Speech Comm 241 or Linguistics 351; Speech Comm 242 and 307. Introduction to language and phonological disorders in children. Emphasis on the speech/language profiles of special populations and contemporary approaches to assessment and intervention. Includes practice in the analysis of child speech/language samples.

### 360 Nonverbal Communication (3) (Formerly 254)

(Same as Linguistics 360)

# 404 Communicative Disorders of the Bilingual/Multicultural Child (3)

Prerequisites: Speech Comm 241, 242, 307, and 352. Comparative analysis of different versus delayed or deviant speech/language development of children from various cultural, ethnic and linguistic backgrounds. Introduction to principles of clinical management of children from culturally diverse populations.

# 407 Speech-Language Development and Disorders for Educators (3)

Prerequisites: Special Education 371 or 400. Monolingual and bilingual speech-language development and disorders, including characteristics of children with potential speech-language problems and techniques for assisting them in classroom settings.

### 410 Teaching Language Handicapped Children (3)

Prerequisites: Speech Comm 241, 242, 307, 352 and senior standing. Models for teaching language handicapped children. Includes teaching strategies, classroom management, and curriculum appropriate for language-handicapped children in special and regular classrooms.

### 413 Communication in Interpersonal Relationships (3)

Prerequisite: Speech Comm 313. Studies of communication in the interpersonal relationship development setting with particular emphasis on current theoretical and methodological issues.

### 420 Communication Theory (3)

Prerequisites: Speech Comm 200, 300, 308, or graduate standing, or consent of instructor. Analysis of various theories and perspectives on human communication. Attention is paid to understanding basic forms of theories and to developing students' theoretical perspectives on human communication.

# 422 Applications of Intercultural Communication (3)

Prerequisite: Speech Comm 320. Nature and effects of intercultural communication within multicultural/multinational organizations. Examination of intercultural leadership, negotiation, decision-making, and communication competence. Analysis of and practice in a number of intercultural training approaches.

### 430 Classical Rhetoric (3)

Prerequisites: six units of upper-division coursework in Speech Communication including Speech Comm 300. Significance of rhetoric and oratory in Greek and Roman intellectual life from the 4th Century B to 300 A.D. Contributors include Protagoras, Socrates, Plato, Aristotle, Cicero, Quintilian, and Augustine.

### 432 Contemporary Rhetoric (3)

Prerequisites: six units of upper-division courses in communication theory and process to include Speech Communication 300. The nature of rhetorical theory in the 20th century.

### 433 Training and Development (3)

Prerequisites: Speech Comm 324 or Speech Comm 326, and Speech Comm 308. Studies of communication in a training and development environment with particular emphasis on learning principles, instructional design, implementation and evaluation of training, and needs assessment.

### 437 Internship: Speech Communication (3)

Prerequisites: any two of the following courses: Speech Comm 301, 324, 326, 333, 420 or consent of instructor. On-site involvement with communication frameworks as they function in ongoing organizational settings. Working in an organization and seminar activities. Application for internship must be submitted prior to enrollment.

### 438 Principles of Rhetorical Criticism (3)

Prerequisite: six units of upper-division communication theory and process courses to include Speech Comm 300. Explanation and evaluation of rhetorical experience.

Historical modes of criticism, issues in rhetorical criticism, criticism in various contexts and experiences in criticism.

### 450 Acoustic Phonetics (3)

Prerequisites: Speech Comm 241 or Linguistics 351; Speech Comm 350 or Linguistics 406; or equivalent. Overview of the acoustic characteristics of speech, song, and voice including an introduction to instrumental techniques for examining the acoustics of speech, song, and voice. Practice in the reading and interpretation of sound spectograms.

### 458 Clinical Practicum: Speech and Language Disorders in Children (3)

Prerequisites: Speech Comm 352, 476, and approved Clinical Practicum Plan.

Supervised experience in the assessment and treatment of children with speech and language disorders. Weekly individual and group conferences. Approximately 40 clinical clock hours. May be repeated for credit. May not be taken concurrently with Speech Comm 558B.

### 461 Audiology and Audiometry (3)

Prerequisites: Speech Comm 242 and 344. Characteristics of hearing disorders including etiologies and risk factors. Methods and procedures used in assessing the auditory system including current topics of interest. Partially fulfills the requirements for state audiometrist certificate.

### 465 Aural Rehabilitation (3)

Prerequisite: Speech Comm 461. Effects of hearing loss on speech and language.

Treatment of hearing disorders, including amplification and aural rehabilitation.

Presents information on the role of the audiologist and speech-language pathologist in the management of hearing disorders.

### 468 Audiology Practicum (1)

Prerequisites: Speech Comm 461 and approved Clinical Practicum Plan.

Audiometric evaluations including pure tone testing, hearing aid evaluations, impedance audiometry and report writing. Provides 15-20 clinical clock hours in audiology.

### 472 Voice and Craniofacial Disorders (3)

Prerequisites: Speech Comm 241, 242, and 344. Disorders of voice; disorders of articulation and resonance caused by orofacial pathology. Includes anatomical and physiological bases, assessment, diagnosis, management, and interdisciplinary aspects.

# 474 Neurology and Neurogenic Communicative Disorders (3)

Prerequisites: Speech Comm 241, 242, 307, and 344. Anatomy and physiology of the nervous system as they relate to speech, language, hearing, and swallowing. Clinical characteristics of neurogenic language disorders, apraxia of speech, and dysarthria. Contemporary approaches to assessment and treatment. Lecture, demonstration, and clinical observations.

### 475 Fluency Disorders (3)

Prerequisites: Speech Comm 241, 242, 307, and 344. Theories of development and remission of stuttering, constitutional and environmental risk factors. Clinical characteristics of stuttering. Contemporary approaches to assessment and treatment. Lecture, demonstration, clinical observations, and exercises.

### 476 Clinical Methods and Procedures (3)

Prerequisites: Speech Comm 241, 242, 307, 344, 352, and 472 or 474 or 475. Introduction to general principles and procedures for assessment and treatment of individuals with communicative disorders. Lecture, demonstration, clinical observations, and supervised clinical experience.

### 485 Aural Rehabilitation Practicum (1)

Prerequisites: Speech Comm 461, 465, and 458 or 468 or 558A; and approved Clinical Practicum Plan. Supervised rehabilitation of hearing impaired children and adults in on- and off-campus facilities. Provides 15-20 clinical clock hours in aural rehabilitation. Sign language background recommended. Credit/no credit only.

### 489A Public School Practicum in Communicative Disorders (4)

Prerequisites: Speech Comm 458, 558A, concurrent enrollment in Speech Comm 490, application approved prior to semester of practicum, admission to the graduate program in communicative disorders and approved Clinical Practicum Plan. Meets the directed teaching requirements for the Clinical Rehabilitative Services Credential.

### 489B Public School Practicum in the Special Class (4)

Prerequisites: Speech Comm 410, Reading 480, concurrent enrollment in Special Education 482A, Speech Comm 489A and 490 or concurrent enrollment; approved application prior to semester of practicum, admission to the graduate program in communicative disorders, and approved Clinical Practicum Plan. Meets the directed teaching requirements of Clinical Rehabilitative Services Credential Special Class Authorization.

# 490 Seminar: Speech & Hearing Service in Schools (2)

Prerequisite: concurrent enrollment in Speech Comm 489A and admission to the graduate program in communicative disorders. Problems and challenges unique to the student clinician in the organization and management of the speech and hearing program in the school. The clinician's role; planning, scheduling, case finding, treatment program reporting and other responsibilities.

### 492 Proseminar in Speech Communication (3)

Prerequisite: appropriate theoretical coursework and consent of instructor. Current research topics in the concentration areas of persuasion and argumentation, interpersonal communication, intercultural communication, and organizational communication will be presented. May be repeated for credit with a different topic.

### 496 Student-to-Student Tutorials (1-3)

Consult "Student-to-Student Tutorials" in this Catalog for more complete course description.

### 499 Independent Study (1-3)

Open to upper-division students in speech communication only with signed consent form from department chair. May be repeated for credit.

### 500 Research in Speech Communication (3)

Prerequisites: Speech Comm 300, 308, or equivalent; admission to M.A. program.

Research design and methods used in historical, descriptive and experimental research in speech communication.

# 510 Seminar in Interpersonal and Relational Communication (3)

Prerequisites: Speech Comm 324, 313 and 420 or consent of instructor. Theoretical and empirical examination of interpersonal and relational communication. Generation of theoretical frameworks and/or heuristic models of concepts and process under investigation.

### 520 Seminar in Group Communication (3)

Prerequisites: Speech Comm 324. Small group communication theory. Small group variables, methods and outcomes, and group process as a learning tool.

# 522 Seminar in Intercultural Communication (3)

Prerequisite: Speech Comm 320 or consent of instructor. Review of theory and methodology in intercultural communication research. Specific variables examined include attribution, values, communication competence, and acculturation/adaptation. Practice in completing original research in intercultural communication.

### 525 Seminar in Organizational Communication (3)

Prerequisites: Speech Comm 324, 326, and 420, or consent of instructor. Theoretical postulates concerning managerial and organizational communication. Research findings and case studies relating to communication determinants and organizational effectiveness. Communicative relationships among individuals, the work unit and the organization.

# 535 Seminar in Argumentation and Persuasion (3)

Prerequisites: Speech Comm 332, 334, or 335 or consent of instructor. Study of leading theories and empirical research on argumentation and persuasion. Strategies of effective advocacy and compliance-gaining are examined. Course content deals with both laboratory research and applied settings. Ethical issues related to argumentation and persuasion are examined.

### 536 Seminar in Communication and Rhetorical Theory (3)

Prerequisite: admission to the graduate program in speech communication. An analysis of rhetorical and communication theories. Comparisons and contrasts of the epistemological bases of empirical and humanistic inquiry.

### 542 Neurologic Bases of Speech and Language (3)

Prerequisite: admission to the graduate program in communicative disorders. Functional neuroanatomy as it relates to speech production and swallowing; the neuropsychologic bases of consciousness, attention, sensation, perception, memory, higher mental functions, and language with emphasis on those aspects most relevant to the speechlanguage pathologist.

### 543 Seminar in Neurogenic Speech Disorders and Dysphagia (3)

Prerequisites: Speech Comm 542; admission to the graduate program in communicative disorders or consent of instructor. Theory and clinical aspects of neurogenic speech disorders and dysphagia. Includes videofluoroscopic and clinical assessment, diagnosis, and treatment of dysphagia; assessment, diagnosis, and management of dysarthrias and apraxia of speech. Emphasis on current research on treatment efficacy.

### 544 Seminar in Neurogenic Language and Cognitive Disorders (3)

Prerequisites: Speech Comm 542; admission to the graduate program in communicative disorders or consent of instructor. Theory and clinical aspects of neurogenic language and cognitive disorders; includes standardized and informal assessment, differential diagnosis, prognosis, treatment planning and execution, patient and family education, community reentry, and ethical considerations.

# 554 Seminar in Multicultural Issues in Communicative Disorders (3)

Prerequisites: Speech Comm 404 and admission to the graduate program in communicative disorders. Critical review of current theory and research on the clinical management of clients from culturally/linguistically diverse populations. Includes opportunities for practical applications of research through case study review and laboratory activities.

### 558A Clinical Practicum: Speech and Language Disorders in Adults (3)

Prerequisites: Speech Comm 472, 474, 475, 476, admission to the graduate program in communicative disorders and approved Clinical Practicum Plan. Supervised experience in assessment and treatment of adults with speech and language disorders. Approximately 40 clinical clock hours. May be repeated for credit.

# 558B Clinical Practicum: Diagnosis in Communicative Disorders (2)

Prerequisites: Speech Comm 476, 458, 558A, admission to the graduate program in communicative disorders, and approved Clinical Practicum Plan. Supervised experience in assessment and diagnosis of speech and language disorders. Development of an understanding of procedures and process of clinical supervision. Approximately 20 clinical clock hours. May be repeated for credit. May not be taken concurrently with Speech Comm 458.

### 558C Clinical Practicum: Communicative Disorders in Bilingual/ Multicultural Individuals (2)

Prerequisites: Speech Comm 404, 458, 558A, admission to the graduate program in communicative disorders, and approved Clinical Practicum Plan. Supervised experience in assessment and treatment of clients from culturally/linguistically diverse populations. Approximately 20 clinical clock hours. May be repeated for credit.

### 558D Clinical Practicum: Instrumental Management in Communicative Disorders (2)

Prerequisites: Speech Comm 458, 558A, 573, 576, 450 or concurrent enrollment, admission to the graduate program in communicative disorders, and approved Clinical Practicum Plan. Supervised experience in assessment and treatment of clients using instrumental management; include voice, craniofacial disorders, and/or augmentative and alternative communication. Approximately 20 clinical clock hours. May be repeated for credit.

### 559A Advanced Clinical Practicum: Communicative Disorders (3)

Prerequisites: Speech Comm 458, 542, 558A, admission to the graduate program in communicative disorders, and approved Clinical Practicum Plan. Advanced clinical practice under supervision with children and adults. Off-campus program in hospitals, clinics, centers and other areas of rehabilitation.

### 559B Advanced Clinical Practicum: Communicative Disorders (1-3)

Prerequisite: Speech Comm 559A, approved application prior to semester of practicum, admission to the graduate program in communicative disorders, and approved Clinical Practicum Plan. Advanced clinical practice, under supervision, in off-campus medical, clinical and community center facilities.

### 571 Seminar in Fluency Disorders (3)

Prerequisites: Speech Comm 308, 475, or equivalent. Employs reading assignments, seminars, lectures, and case reviews to enable students to develop a framework for understanding the etiology and maintenance of stuttering and to develop their own approaches to assessment and treatment.

### 573 Seminar in Voice Disorders (3)

Prerequisites: Speech Comm 472, and admission to the graduate program in communicative disorders. The course reviews the classification of voice disorders (perceptually); examines instrumental assessment of such disorders (acoustically); and emphasizes a comprehensive physiological, perceptual, and acoustic work-up of individual cases.

# 574 Seminar in Phonological Disorders (3)

Prerequisites: Speech Comm 352, and admission to the graduate program in communicative disorders. Emphasis on developing critical thinking and analytical skills related to current issues in linguistic theories on the assessment and treatment of phonological disorders in children.

# 576 Seminar in Augmentative and Alternative Communication (3)

Prerequisites: admission to the graduate program in communicative disorders. Historical service delivery approaches; symbol sets and systems; assessment and management strategies for persons with severe physical and speech impairments; advocacy approaches for the disabled.

# 577 Seminar in Child Language Disorders (3)

Prerequisites: Speech Comm 352, and admission to the graduate program in communicative disorders. Principles of language assessment and intervention based upon psycho-linguistic theory and current research on language disordered children. Emphasis placed on the development of critical thinking and analytical skills related to the assessment and treatment of language disorders in children.

### 596 Directed Graduate Research (3)

Prerequisite: Speech Comm 500.
Individual research study, under the supervision of the chair of the student's advisory committee.

### 598A,B,C Thesis (2,2,2)

Prerequisite: Speech Comm 500. The selection, investigation and written presentation of a selected problem in the field of speech.

# 599 Independent Graduate Research (1-3)

Open to graduate students only with signed consent form from department chair.

May be repeated for credit.

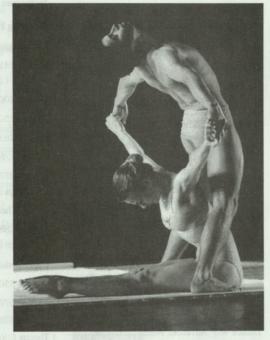
# theatre and raduate programs include the exchnical production and design,

### INTRODUCTION

The Department of Theatre and Dance undergraduate and graduate programs include the fields of acting, dance, directing, musical theatre, playwriting, technical production and design, and theatre for young audiences. Specifically, the course work and theatrical and dance production activities are arranged to provide opportunities for students (1) to develop an appreciation for theatre arts and dance; (2) to become aware, as audience or participants, of the shaping force

of theatre arts and dance in society; (3) to improve the knowledge and skills necessary for work in the theatrical arts profession and careers in dance; (4) to pursue graduate studies; and (5) to prepare for teaching theatre.

Public performance is at the center of the department's programs. Therefore, continuing theatre and dance production activities are essential for all students at California State
University, Fullerton, including the undergraduate and graduate theoretical student as well as the undergraduate pre-professional and graduate conservatory student. The program in dance is designed to develop basic technique, ability to perform, and fundamental principles that lead



to a fuller appreciation of the art. Within a clear framework of technique and dance studies, students will encounter challenges in both areas. Public performance as well as a sound academic schedule are considered paramount.

### FACULTY

Barbara Arms, Joseph Arnold, Donn Finn, John Fisher, Bruce Goodrich, Susan Hallman, Dean Hess, Lawrence Jasper, Robin Johnson, Gladys Kares, Dan Kern, Alex MacKenzie, Joan Melton, William Meyer, Sallie Mitchell, Ann Sheffield, James R. Taulli, Jim Volz, Ron Wood, Abel Zeballos

### **GENERAL MAJOR REQUIREMENTS**

The concentration in Liberal Arts in theatre is for those who wish to study theatre as a cultural contribution or who wish to pursue graduate degrees in theatre with an emphasis in theory and research. It is strongly recommended that students electing this plan support the major with approved electives from art, music, foreign languages, literature, philosophy or speech.

The Bachelor of Fine Arts Degree is designed for those wishing to pursue a career as a professional artist. Currently a concentration in Musical Theatre is offered.

The concentration in Teaching in theatre meets the requirements of the teaching credential with specialization in secondary teaching.

The Bachelor of Arts in Dance is designed to develop competency for pursuing careers in dance or for pursuing a graduate degree in dance.

### CHAIR

Susan Hallman

### **DEPARTMENT OFFICE**

Performing Arts 157

### **PRODUCTION OFFICE**

Performing Arts 126

### PROGRAMS OFFERED

Bachelor Arts in Theatre Arts Liberal Arts

Production/Performance

Acting

Directing was a selection of the selecti

Technical Production/Design

Teaching

Bachelor of Fine Arts in Theatre Arts

Musical Theatre

Bachelor of Arts in Dance

Master of Arts in Theatre Arts

Master of Fine Arts in Theatre Arts

Acting

Directing

Design and Technical Production
Secondary Teaching Credential

In addition to the requirements listed below for the major, students must meet the university requirements for general education. Students pursuing a concentration in Teaching must meet all specific requirements for the desired teaching credential. See description of secondary school teaching credential program under Department of Secondary Education. In addition, students pursuing the teaching concentration should see the department's secondary education adviser regarding course sequence required for the single subject waiver in English.

To qualify for a B.A. or B.F.A. degree with a major in theatre or dance, students must have a C or better in all theatre, dance or music courses required for the degree. In addition to course requirements, all theatre and dance majors will enroll for two units of Theatre 478B each semester of residency up to a maximum of eight semesters. All dance majors are strongly encouraged to enroll in Dance 478A Performance each semester.

Theatre 477B with a grade of *C* or better fulfills the upper-division writing requirement for theatre majors. Dance 325 with a grade of *C* or better fulfills the upper-division writing requirement for dance majors.

Theatre 200, or its equivalent, is a prerequisite for all upper-division theatre courses with the exception of Theatre 478A,B. Transfer students may take Theatre 200 concurrently with their first semester of upperdivision courses. Prior to entering their junior year, or upon transferring to Cal State Fullerton, all students electing an Acting emphasis under the Production/Performance concentration, a Musical Theatre concentration under the B.F.A., or the major in Dance will be evaluated and advised as to potential for advancement in the emphasis or major. Auditions are held only at the end of the Spring Semester for entrance into the junior level performance classes. Students should contact the department regarding audition requirements.

### **BACHELOR ARTS IN THEATRE ARTS**

### LIBERAL ARTS CONCENTRATION

Lower Division Core (15 units)

Theatre 200 Art of the Theatre (3)

Theatre 250 Theatre Management (3)

Theatre 263A Acting I: Majors (3)

Theatre 276 Introduction to Stagecraft (3)

Theatre 277 Introduction to Costume Design (3)

Upper Division Core (18 units)

Theatre 370A Fundamentals of Directing (3)

Theatre 386 Fundamentals of Lighting Design (3)

Theatre 475A,B,C World Theatre (9)

Theatre 477B Seminar in Critical Techniques (3)

Electives (24 adviser-approved units)

Acting/Directing (6 units minimum)

Theatre 141A,B Voice/Movement for the Stage I (6)

Theatre 263B Acting I: Majors (3)

Theatre 363 Acting II: Majors (3)

Theatre 350 Stage Management (2)

Theatre 370B Fundamentals of Directing (3)

Theatre 470A Advanced Directing (3)

Technical Theatre and Design (6 units minimum)

Theatre 279 Drafting for the Theatre (3)

Theatre 285 Theatrical Makeup (3)

Theatre 288 Introduction to Scene Design (3)

Theatre 377 Costume Design (3)

Theatre 387 Audio Techniques (3)

Theatre 388 Period Style and Form for the Theatre (3)

Theatre 486 Advanced Lighting Design (3)

Theatre 487 Advanced Audio Techniques (3)

Theatre 488 Advanced Design & Production Technology (3)

Upper-Division Electives (12 adviser-approved units)

# PRODUCTION/PERFORMANCE CONCENTRATION

### **Acting Emphasis**

Lower Division (24 units required)

Theatre 110 Oral Communication of Literature (3)\*

Theatre 141A,B Voice/Movement for Stage I (6)

Theatre 200 Art of the Theatre (3)

Theatre 263A,B Acting I: Majors (6)

Six units selected from:

Theatre 276 Introduction to Stagecraft (3)

OR Theatre 277 Introduction to Costume Design (3)

Theatre 285 Theatrical Makeup (3)

Upper Division (36 units required)

Theatre 310 Oral Interpretation of Shakespeare (3)

Theatre 363A,B Acting II: Majors (6)

Theatre 370A Fundamentals of Directing (3)

Theatre 463A,B Acting III: Majors (6)

Theatre 475A,B,C World Theatre (9)

Theatre 477B Seminar in Critical Writing Techniques (3)

Theatre 482A,B Acting IV: Camera Techniques for Actor and Director (3,3)

### **Directing Emphasis**

Lower Division (27 units required)

Theatre 141A,B Voice/Movement for the Stage I (6)

Theatre 200 Art of the Theatre (3)

Theatre 250 Theatre Management (3)

Theatre 263A,B Acting I: Majors (6)

Theatre 276 Introduction to Stagecraft (3)

Theatre 277 Introduction to Costume Design (3)

OR Theatre 285 Theatrical Makeup (3)

Theatre 288 Introduction to Scene Design (3)

Upper Division (32 units required)

Theatre 350 Stage Management (2)

Theatre 370A,B Fundamentals of Directing (6)

Theatre 386 Fundamentals of Lighting Design (3)

Theatre 470A,B Advanced Directing (6)

Theatre 475A,B,C and E World Theatre (12)

Theatre 477B Seminar in Writing Critical Techniques (3)

All theatre majors with an emphasis in directing must assistant stage manage a production either prior to or concurrently with Theatre 470A, Advanced Directing, and must stage manage a production prior to graduation.

### **Playwriting Emphasis**

Lower Division (15 units required)

Theatre 110 Oral Communication of Literature (3)\*

Theatre 200 Art of the Theatre (3)

Theatre 263A Acting I: Majors (3)

Theatre 276 Introduction to Stagecraft (3)

OR Theatre 277 Introduction to Costume Design (3)

Theatre 288 Introduction to Scene
Design (3)

Upper Division (41 units required)

Theatre 350 Stage Management (2)

Theatre 364 Seminar in Playwriting (3,3)

Theatre 370A,B Fundamentals of Directing (6)

Theatre 386 Fundamentals of Lighting Design (3)

Theatre 470A,B Advanced Directing (6)

Theatre 475A,B,C, and E World Theatre (12)

Theatre 477A,B Seminar in Critical Techniques (6)

# Technical Production/Design Emphasis

Lower Division (21 units required)

Theatre 200 Art of the Theatre (3)

Theatre 263A Acting I: Majors (3)

Theatre 276 Introduction to Stagecraft (6)

Theatre 277 Introduction to Costume Design (3)

Theatre 279 Drafting for the Theatre (3)

Theatre 285 Theatrical Makeup (3)

Theatre 288 Introduction to Scene Design (3)

Upper Division (30 units required)

Theatre 370A Fundamentals of Directing (3)

Theatre 379 Drawing and Rendering (3)

Theatre 386 Fundamentals of Lighting Design (3)

Theatre 387 Audio Techniques (3)

Theatre 377 Costume Design (3)

OR Theatre 388 Period Style and Form for the Theatre (3)

Theatre 475A,B,C World Theatre (9)

Theatre 477B Seminar in Writing Critical
Techniques (3)

Theatre 488 Advanced Design and Production (3)

Adviser-Approved Electives (8 units) chosen from:

Theatre 350 Stage Management (2)

Theatre 485 Advanced Makeup (3)

Theatre 476 Stage Mechanics/Rigging (3)

Theatre 486 Advanced Lighting Design (3)

Theatre 487 Advanced Audio (3)

Theatre 488 Advanced Design and Production (3)

# TEACHING CONCENTRATION (SINGLE SUBJECT)

Lower Division (27 units required)

Theatre 141A,B Voice/Movement for the Stage I (6)

Theatre 200 Art of the Theatre (3)

Theatre 263A,B Acting I: Majors (6)

Theatre 276A Introduction to Stagecraft (3)

Theatre 277 Introduction to Costume Design (3)

Theatre 285 Theatrical Makeup (3)

Theatre 288 Introduction to Scene Design (3)

Upper Division (29 units required)

Theatre 350 Stage Management (2)

Theatre 370A,B Fundamentals of Directing (6)

Theatre 386 Fundamentals of Lighting Design (3)

Theatre 402B Dramatic Activities for Children (3)

Theatre 470A Advanced Directing (3)

Theatre 475A,C,E World Theatre (9)

Theatre 477B Seminar in Writing Critical Techniques (3)

OR English 301 Advanced College Writing (3)

Theatre Education majors are required to complete the Waiver Program in English.

# BACHELOR OF FINE ARTS IN THEATRE ARTS

# **MUSICAL THEATRE CONCENTRATION**

This degree is for students who desire a professionally oriented education and training in musical theatre. Only those who exhibit exceptional talent, motivation, and commitment will be admitted to the program.

Prior to entering the junior year, or upon transferring to Cal State Fullerton, all students electing a major in musical theatre will be auditioned, evaluated, and advised as to potential for advancement in the major.

All applicants for the B.F.A. degree must complete the following for entry into the degree program: Theatre 141A,B and Theatre 263A,B or equivalent, with a minimum grade of B in each course and an audition which shall consist of acting, singing, and dance.

In addition to the requirements listed below for the major, students must meet the university requirements for a baccalaureate degree. All degree candidates must:

- 1. prove competency in piano.
- 2. achieve a 300 level in voice juries.
- audition for and be available for casting in all Department of Theatre and Dance musical theatre productions.
- 4. crew one show per semester to a maximum of eight units in Theatre 478B.

# Lower Division (25 units required)

Theatre 200 Art of the Theatre (3)

Theatre 236A,B Musical Theatre
Performance (2,2)

Theatre 285 Theatrical Makeup (3)

Technical Theatre Course selected from Theatre 276 Introduction to Stagecraft,

Theatre 277 Introduction to Costume
Design, or Theatre 288 Introduction
to Scene Design (3)

Dance 242 Tap Dance II (2)

Dance 212 Ballet II (2)

Dance 232 Jazz II (2)

Music 110 Foundation of Music (2)

Music 111 Diatonic Harmony (2)

Theatre 193, 293 Individual Voice Instruction (1,1)

## Upper Division (40 units required)

Theatre 363A,B Acting II: Majors (3,3)

Theatre 370A Fundamentals of Directing (3)

Theatre 436A,B Musical Theatre Workshop (3,3)

Theatre 475A,B, or C World Theatre (3,3)

Theatre 475E World Theatre (3)

Theatre 477B Senior Seminar in Critical Techniques (3)

Theatre 497 Production and Performance Projects (1,1,1,1)

Dance 332 Jazz Dance III(3)

Dance 336 Dance for Musical Theatre (3)

Music 380A Diction for Singers-English (1)

Theatre 393, 493 Individual Voice Instruction (1,1)

# Electives in the discipline of musical theatre (3 units required) chosen from:

Dance 126 Dance Improvisation (2)

Dance 312 Ballet III (3)

Music 112, 112L Diatonic Harmony (2,1)

Music 184B Piano Class (1)

Music 361D Opera Theatre (1)

Music 365V Vocal Workshop (1)

Theatre 310 Oral Interpretation of Shakespeare (3)

Theatre 443 Audition and Rehearsal Processes (3)

Theatre 463A,B Acting III: Majors (3,3)

Theatre 482A,B Acting IV: Camera
Techniques for Actor and Director (3,3)

Theatre 483 Advanced Acting Workshop (3)

# **BACHELOR OF ARTS IN DANCE**

Lower Division (13 Units Required)

Dance 112 Ballet I (2)

Dance 122 Modern Dance I (2)

Dance 126 Dance Improvization (2)

Dance 212 Ballet II (2)

Dance 222 Modern Dance II (2)

Dance 226 Rhythmic Analysis (3)

Upper Division (38 Units Required)

Dance 301 Dance in Cultural Diversity (3)

Dance 312 Ballet III (2)

Dance 322 Modern Dance III (2)

Dance 323A,B Dance Composition (3,3)

Dance 324 Forces and Figures in Dance (3)

Dance 325 Dance Theory and Criticism (3)

Dance 372 Dance Kinesiology (3)

Dance 412 Ballet IV (3)

Dance 422 Modern Dance IV (3)

Dance 423 Advanced Dance Composition (3)

Dance 424 Dance Pedagogy (2)

Dance 471 Creative Dance for Children (3)

Dance 478A Production and Performance (2)

Electives (6 Units Required)

With the approval of the appropriate departmental adviser, students complete a minimum of six elective units, including at least one course from each category below:

Category I:

Dance 132 Jazz 1 (2)

Dance 142 Tap Dance I (2)

Dance 213 Classical Pointe (2)

Dance 232 Jazz II (2)

Dance 242 Tap Dance II (2)

Dance 332 Jazz III (3)

Dance 336 Dance for Musical Theatre (3)

Dance 478A Production and Performance (2)

Dance 497 Production and Performance
Projects in Dance (1-3)

Category II:

Theatre 277 Introduction to Costume Design (3)

Theatre 285 Theatrical Makeup (3)

Theatre 386 Fundamentals of Lighting Design (3)

Theatre 387 Audio Techniques (3)

### **MASTER OF ARTS IN THEATRE ARTS**

The Master of Arts in Theatre Arts provides a program of coordinated graduate studies built on undergraduate preparation; incentive for intellectual growth reflected in teaching and professional recognition; and a sound basis for continued graduate study in theatre. The student is expected to demonstrate a high degree of intellectual and creative competence.

# Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures).

## Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing upon the development of an approved study plan: an appropriate undergraduate major in theatre, with a grade-point average of 3.0 in all upper-division work in the major, or at least 24 units of appropriate upper-division work in theatre, with a GPA of 3.0; satisfactory completion of the Graduate Writing Requirement; and an oral interview. Upon recommendation of the students graduate committee, additional prerequisites may be required prior to classification and the approval of the area of emphasis.

# Study Plan

The study plan will include at least 30 units of adviser-approved graduate studies, 15 units of which must be 500-level courses. Study plan course work must be completed with an overall minimum 3.0 grade-point. Each program will consist of 24 units in theatre including a thesis. All students must also pass oral and written examinations.

Written comprehensive examinations will be

given during the seventh and eighth weeks of the spring semester. Students must apply to the graduate coordinator prior to the beginning of the semester in which they intend to take the written examination. Students will be permitted to take the written examination twice.

Required Courses (18 units)

Theatre 477A Seminar in Critical Techniques (3)

Theatre 500 Introduction to Graduate Study in Theatre (3)

Theatre 501 Graduate Seminar: Advanced Theatre Theory (3)

Theatre 573 Seminar in Dramatic Literature (3)

Theatre 575 Seminar in Theatre History (3)

Theatre 583 Graduate Seminar: Acting (3)

# Electives (9 units)

As part of their electives, students may select a maximum of six units of adviser-approved supporting courses in related fields from courses outside the Department of Theatre and Dance.

Thesis (3 units)

Theatre 598 Thesis (3)

For further information, consult the Department of Theatre and Dance.

# MASTER OF FINE ARTS IN THEATRE ARTS (DESIGN AND TECHNICAL PRODUCTION, ACTING AND DIRECTING)

This degree is for students who desire a professionally oriented education and training in design and technical production, acting, and directing. It is the objective of the department to educate and train highly skilled, motivated individuals for careers in professional theatre (including television and film) or for careers as artist-teachers in college or university theatre. Only those who demonstrate an exceptional talent, a high degree of motivation, and a deep commitment to their education and training will be admitted into the program. The highest academic and creative standards will be demanded throughout the program. A positive attitude and a rigid sense of theatre discipline are essential for success in the program.

The degree requires 60 units of approved course work. Based on a student's previous undergraduate or professional experience, substitutions or revisions in the study plan

might be appropriate. Average length of time to complete the program is three years.

# Admission to Graduate Standing: Classified

Prerequisites for admission to the program and granting of classified standing are:

- B.A., B.F.A. or M.A. from an accredited college or university with a major in theatre; or a degree in a related field and extensive work in technical design and production, acting, or directing.
- Completion of an oral interview and satisfactory review of the student's portfolio or audition.
- 3. Acceptance by the faculty.
- Minimum GPA of 3.0 in all upper-division undergraduate work in theatre. A minimum GPA of 2.75 for the last half of the undergraduate program is also required.
- Completion of any additional prerequisites which may be required by the student's individual committee prior to classification.
- Selection of a graduate adviser and committee. Total committee membership should be three or four faculty members, including the adviser.
- Submission of a formal M.F.A. study program approved by the individual committee, the department graduate adviser and the dean of graduate studies.
- Must meet the Graduate Writing Requirement.

# Admission to Graduate Standing: Conditionally Classified

Students who do not meet certain prerequisites may be considered for admission in conditionally classified graduate standing.

Consult the graduate program adviser.

# STUDY PLAN - ACTING

Course Requirements (60 units)

Theatre 443 Audition and Rehearsal Processes (3)

Theatre 500 Intro to Graduate Study in Theatre (3)

Theatre 541 Voice and Movement for the Actor (8)

Theatre 543 The Performer and the Professional Theatre (3)

Theatre 563 Acting Studio (16)

Theatre 565 Dramatic Textual Analysis (3)

Theatre 570A,B Styles of Directing/ Performance (6)

Theatre 582A,B Camera Techniques for the Actor and Director (3,3)

Theatre 583 Graduate Seminar: Acting (3)

Theatre 597 Projects (Two) (3,3)

Adviser-Approved Elective (3)

# M.F.A. Projects in Acting

The M.F.A. in Acting requires the completion of two creative projects which, by their nature, are of sufficient challenge and complexity to be accepted as worthy completion of the period of study. These projects, which shall be performances in major departmental productions, shall be approved by the individual's committee. In addition, the program will culminate in a project book submitted by the M.F.A. candidate to the individual's committee. The project book will clearly and objectively articulate the development of the candidate's process as an actor based on the various experiences in and materials discovered through both classroom and performance. Before the degree is granted, each student will pass an oral examination over the project book.

# STUDY PLAN - DIRECTING

Course Requirements (60 units)

Theatre 470A Advanced Directing (3)

Theatre 470B Advanced Directing (3)

Theatre 500 Introduction to Graduate Study in Theatre (3)

Theatre 541 Voice and Movement for the Actor (2)

Theatre 563 Acting Studio (4)

Theatre 565 Dramatic Textual Analysis (3)

Theatre 570A,B Styles of Directing/ Performance (12)

Theatre 575 Seminar in Theatre History (3)

Theatre 582A,B Camera Techniques for Actor/Director (6)

Theatre 583 Graduate Seminar: Acting (3)

Theatre 597 Project (3,3)

Adviser-approved electives (includes 6 units technical coursework) (12 units)

# M.F.A. Projects in Directing

The M.F.A. in Directing Program requires the completion of three creative projects,

which have been approved by the individual's committee and which by their nature, are of sufficient challenge and complexity to be accepted as worthy completion of the period of study. These projects shall be mounted and presented by the Department of Theatre and Dance as a portion of its production program. The program shall culminate in a project book submitted by the M.F.A. candidate to the individual's committee. The project book will clearly and objectively articulate the process of formulating the final mainstage project from initial concept to critical reaction. utilizing experiences and material discovered through both classroom participation and the development of the production. Before the degree is granted, each student will pass an oral examination over the project book.

# STUDY PLAN - DESIGN AND TECHNICAL PRODUCTION

Students should concentrate their activities in two of the following four technical theatre areas during their three year course of study: scene design, costume design-makeup, lighting-sound, and technical production.

Course Requirements (60 units)

All of the following (9 units):

Theatre 500 Introduction to Graduate Study (3)

Theatre 565 Dramatic Textual Analysis (3)

Theatre 575 Seminar in Theatre History (3)

Three from the following (9 units):

Theatre 566 Graduate Seminar: Technical Production (3)

Theatre 577 Graduate Seminar: Costume Design (3)

Theatre 578 Graduate Seminar: Scene Design (3)

Theatre 586 Graduate Seminar: Lighting Design (3)

Four enrollments in the following (24 units):

Theatre 588A,B Graduate Projects in Design and Technical Theatre (3/3, 3/3, 3/3, 3/3)

Adviser-approved units from technical

courses in theatre, art or engineering (12 units)

Creative project in two of the four technical areas: Theatre 597 Project (3) (6 units)

# M.F.A. Projects in Design

The M.F.A. Program in Design and Technical Production shall be culminated by two creative projects which, by their nature, are of sufficient challenge and complexity to be accepted as worthy completion of the period of study. These projects are determined by the individual committee and shall be design assignments for major productions. Each project shall be reviewed by the individual committee within two weeks after completion. If accepted, the student shall submit a project book within a specified time. Before the degree is granted, each student will pass an oral examination over the project book.

### **DANCE COURSES**

### 101 Introduction to Dance (3)

Historical and contemporary dance forms. Experiences in various dance forms such as ballet, modern, jazz, folk, ethnic, mime. Recommended for non-majors.

# 112 Ballet I (2)

The fundamental structure and technique of classical ballet. May be repeated once for credit. (4 hours activity)

### 122 Modern Dance I (2)

Exploration and manipulation of the instrument and materials of dance; development of aesthetic judgment. May be repeated once for credit. (4 hours activity)

### 126 Dance Improvisation (2)

Theory and practice of improvisation in movement. Practical use of improvisation in expressing imagery, developing choreographic concepts, and enhancing performance. (4 hours activity)

## 132 Jazz I (2)

Modern jazz dance techniques and basic jazz choreography. (4 hours activity)

# 142 Tap Dance I (2)

Structure and technique of tap dance and tap choreography. (4 hours activity)

# 212 Ballet II (2)

Prerequisites: Dance 112 or consent of instructor. Intermediate level technique of classical ballet. May be repeated once for credit. (4 hours activity)

# 213 Classical Pointe (2)

Prerequisites: Dance 212 or 312 or equivalent level of proficiency and consent of instructor. Technique for basic beginning pointe work and building performing strength. May be repeated once for credit. (4 hours activity)

### 222 Modern Dance II (2)

Prerequisites: Dance 122 and/or placement test. Intermediate modern dance and movement vocabulary in terms of composition and communication. May be repeated for credit. (4 hours activity)

### 226 Rhythmic Analysis (3)

Musical form and structure as it pertains to dance and choreography; musically notating dance rhythms and percussion accompaniment.

# 232 Jazz II (2)

Prerequisites: Dance 132 or consent of instructor. Intermediate level skills in jazz technique and choreography. (4 hours activity)

# 242 Tap Dance II (2)

Prerequisite: Dance 142 or consent of instructor. Intermediate skills in tap technique and choreography. (4 hours activity)

# 301 Dance and Cultural Diversity (3)

Prerequisites: Dance 101 or consent of instructor. Impact of various dance forms, from primitive time to modern, on diverse cultures. Contributions of immigrants, minorities and women to dance as a personal, social and cultural expression.

### 312 Ballet III (2)

Prerequisite: Dance 212 and/or consented placement test. A study of classical ballet technique at the second stage of the intermediate level. Classical ballet technique with emphasis on complex combinations. Study of elements of technique and theory. May be repeated for credit. (4 hours of activity)

# 322 Modern Dance III (2)

Prerequisite: Dance 222 and/or consented placement test. A study of modern dance technique at an advanced intermediate level. A more detailed study of technical theory with emphasis on more complex combinations. May be repeated for credit. (4 hours of activity)

# 323A,B Dance Composition (3,3)

- A. Prerequisites: Dance 122, 126, or equivalents. Study of basic elements and forms of dance composition.
- B. Prerequisite: Dance 323A or consent of instructor. Problem solving studies in space, time, and energy, using choreographic devices in solo and group situations. Final project required. (6 hours activity)

# 324 Forces and Figures in Dance (3)

Prerequisite: consent of instructor. A history of dance from primitive times to the present.

# 325 Dance Theory and Criticism (3)

Prerequisites: Dance 101, 122A or consent of instructor. Theory and criticism of dance. Comparison and relationship of dance principles and criticism among major dance genres, in addition to other art forms. Fulfills the course requirement for the university upper-division baccalaureate writing requirement for dance majors.

# 332 Jazz III (3)

Prerequisites: Dance 232 or consent of instructor. Advanced jazz techniques and choreography through grade three of professional jazz dance. The relation of jazz to other forms of dance. (6 hours activity)

# 336 Dance for Musical Theatre (3)

Prerequisites: Dance 112, 132, and audition, or consent of instructor. Dance utilized in musical theatre. Ensemble and individual approaches to the style. May be repeated for credit. (6 hours activity)

# 372 Dance Kinesiology (3)

Structural aspects of the human body and factors that affect movement in dance.

# 412 Ballet IV (3)

Prerequisites: Dance 212 or 312 or consent of instructor. Stylization and performance of classical ballet. May be repeated once for credit. (6 hours activity)

# 422 Modern Dance IV (3)

Prerequisites: Dance 222 and/or placement test. Advanced level skills in modern dance. Emphasis on individual techniques. May be repeated for credit. (6 hours activity)

# 423 Advanced Dance Composition (3)

Prerequisite: Dance 323A,B or equivalent. Elements and forms in dance composition. The choreographing of dances of concert quality. (6 hours activity)

# 424 Dance Pedagogy (2)

Prerequisites: Dance 112, 222, 226, 323A, 372, and consent of instructor. Philosophies, techniques and methods for developing progressions in dance instruction.

# 471 Creative Dance for Children (3)

Prerequisite: Upper division standing. Methods and materials for teaching creative dance to children. (6 hours activity)

# 478A Production and Performance (2)

(Same as Theatre 478A)

# 497 Production and Performance Projects in Dance (1-3)

Prerequisites: upper division standing and consent of instructor; application form with appropriate signatures must be on file in department office prior to registration.

Projects which culminate in production or performance. May be repeated for credit.

# 499 Independent Study (1-3)

Prerequisites: upper division standing and consent of instructor; application form with appropriate signatures must be on file in department office prior to registration.

Undergraduate research projects. May be repeated for credit.

### THEATRE COURSES

### 100 Introduction to the Theatre (3)

For the general student leading to an appreciation and understanding of the theatre as an entertainment medium and as an art form. Recommended for non-majors.

# 110 Oral Communication of Literature (3)

The analysis and performance of literary works through the medium of oral interpretation. An emphasis upon understanding the content of communication in literature as well as the form. An exploration of the techniques involved in the discovery, critical evaluation and performance of various literary speakers. Meets the General Education requirement in Oral Communication for Theatre/Dance majors.

# 141A,B Voice/Movement for Stage I (3,3)

Prerequisites: Theatre 141A is a prerequisite to 141B. Intensive training in the integral use of the voice and body for the actor; developing skills for vocal and physical relaxation, flexibility, and strength. May be repeated once for credit.

# 163 Acting for Non-Majors (3)

The form and content of acting: improvisation, action, motivation, and behavior.

Recommended for non-majors. (6 hours activity)

# 193 Individual Voice Instruction (1-2)

Prerequisite: jury recommendation.
Individual voice study with approved instructor. Emphasis on technique and repertoire.
BFA Musical Theatre Majors must register for one unit each semester of residency up to a maximum of 4 semsters. May be repeated for credit.

### 200 Art of the Theatre (3)

Theatre as an art form, involving the interrelated processes of playwriting, directing, acting, design and theatre management. Study of scripts with emphasis on dramatic analysis and cultural significance. Required of all theatre majors.

# 236A,B Fundamentals of Musical Theatre Performance (2,2)

Prerequisite for 236B: Theatre 141A, 200, 236A, and audition. Introduction to materials, exercises, techniques and the preparation of audition portfolio for performance in musical theatre. May be repeated for credit.

# 250 Theatre Management (3)

An overview of theatre producing, audience development, fund raising, business management; arts management principles and organization. Participation in School of the Arts management work required. (6 hours activity)

# 263A,B Acting I: Majors (3,3)

Prerequisite for 263B: Theatre 200, 141A,B and 263A. Improvisations, exercises, and techniques of acting for the stage.

Motivation and behavior in characterization. (6 hours activity)

### 276 Introduction to Stagecraft (3)

Planning and construction of stage and television scenery. Use of tools and stage equipment. Work in the scene shop for department productions is required. May be repeated for credit. (6 hours activity) (CAN DRAM 12)

# 277 Introduction to Costume Design (3)

Exploration of design fundamentals, including drawing, play analysis, fabric selection, construction techniques and hypothetical design projects. (6 hours activity)

# 279 Drafting for the Theatre (3) (Formerly 276B)

Prerequisite: 276. Drafting and reading of technical drawings. Work in the scene shop for department productions is required. May be repeated for credit. (6 hours activity)

# 285 Theatrical Makeup (3)

Makeup for stage and television. Individual skill in character analysis, application in pigment, plastic, hair, makeup, and selection and use of makeup equipment. (6 hours activity) (CAN DRAM 14)

# 288 Introduction to Scene Design (3)

Scene design, including script analysis, formation of visual concepts, floor plan development and model building for stage and camera. (6 hours activity)

# 293 Individual Voice Instruction (1-2)

Prerequisite: jury recommendation.
Individual voice study with approved instructor. Emphasis on technique and repertoire.
BFA Musical Theatre Majors must register for one unit each semester of residency up to a maximum of 4 semsters. May be repeated for credit.

# 310 Oral Interpretation of Shakespeare (3)

Prerequisite: Upper division standing; Theatre 110 or consent of instructor. Development of techniques for oral interpretation of Shakespeare with special emphasis on the problems of verse.

# 315 Chicano/Latino Theatre (3)

(Same as Chicano Studies 315)

# 320 Theatre and Issues in American Society (3)

Prerequisites: Theatre 100, 163, 200 or equivalent. The study and analysis of modern and contemporary literature and productions of comedies, dramas and musicals that examine current social problems to establish an experimental view of living in today's world.

# 350 Stage Management (2)

Corequisite: Theatre 370A. Backstage management, including interrelationships of production personnel for stage and television.

# 363A,B Acting II: Majors (3,3)

Prerequisites: Theatre 200, 141A,B, 263A,B and audition. Characterization; roles, special problems, and application of acting techniques through exercises and two-character scenes from the contemporary theatre. (6 hours activity)

# 364 Seminar in Playwriting (3)

Prerequisites: evidence of interest in creative writing and consent of instructor. Study of superior models, development of style, and group criticism and evaluation of independent work, as it relates to playwriting. May be repeated for credit.

# 370A,B Fundamentals of Directing (3,3)

Prerequisites: Theatre 263A, or consent of instructor. 370A is prerequisite to B.

Prerehearsal problems and procedures, structural analysis of plays, composition, picturization, pantomimic dramatization, movement and rhythm on stage and in television. Practice in directing scenes. (6 hours activity)

# 377 Costume Design (3)

Advanced work in the design process involving research, costume history and fundamentals of cutting and draping.

# 379 Drawing and Rendering (3)

Scenic and costume sketching and rendering for communication between production director and designers. Full scale costume and scenic painting required. Theoretical and actual production idea presentation and execution. (6 hours activity)

# 383 Drama into Film (3)

Prerequisite: theatre 100. A critical examination of films adapted from plays.

Interpretation and evaluation of the techniques and structure employed in presenting dramatic literature in theatrical and film performance.

Intended primarily for non-theatre majors; may be used as a theatre-major elective.

### 386 Fundamentals of Lighting Design (3)

Theories of lighting for stage and camera productions. Work on departmental productions is required. (6 hours activity)

# 387 Audio Techniques (3)

Practice necessary to integrate live and recorded sound into performing arts productions. Recording, reproduction and studio techniques. (6 hours activity)

# 388 Period Styles and Form for the Theatre (3)

Visual survey through lecture and slides of architecture, interior design and furniture from ancient to modern times. Provides necessary basis for advanced design course.

# 393 Individual Voice Instruction (1-2)

Prerequisite: jury recommendation. Individual voice study with approved instructor. Emphasis on technique and repertoire. BFA Musical Theatre Majors must register for one unit each semester of residency up to a maximum of 4 semsters. May be repeated for credit.

# 402A,B Dramatic Activities for Children (3.3)

Prerequisite: upper division standing. Creative dramatics as a tool for building and developing creative and socialized processes in children. A—Sense memory, movement/mine, dialogue, characterization, dramatization. B—Teaching techniques including concentration, imangination, dramatization, and improvisation for adolescents. (6 hours activity)

# 403A,B Theatre for Young Audiences (3,3)

Prerequisite: 403A prerequisite for 403B or consent of instructor. Theatrical production for an audience of children. A - Philosophy, theory and practice; B - Application of production principles. (6 hours activity)

# 411 Oral Interpretation of Children's Literature (3)

Prerequisite: upper division standing. Oral presentation of children's literature in class-room, recreation and home situations including individual and group performance of fiction, non-fiction, fantasy and poetry.

### 436A,B Musical Theatre Workshop (3,3)

Prerequisites: Theatre 363B, Dance 336, and audition. Theatre 436A prerequisite to B. Roles and excerpts from musical theatre: the musical, dramatic, language and dance techniques. Scenes and musical numbers in workshop.

- A. Large group and solo work.
- B. Small group and audition material preparation. (6 hours activity)

# 443 Audition and Rehearsal Processes (3)

Prerequisites: Theatre 363A,B.

Auditioning and rehearsal processes for professional work in theatre, television and film.

Includes techniques for selecting material and performance preparation. (6 hours activity)

# 463A,B Acting III: Majors (3,3)

Prerequisites: Theatre 310, Theatre 363A,B and audition. Historical theories and techniques of styles of acting. A - Greek through renaissance periods. B - The neoclassic periods to contemporary styles. (6 hours activity)

# 470A,B Advanced Directing (3,3)

Prerequisites: Theatre 288, 350, and 370A,B, or consent of instructor. Readings in theory, analysis of scripts and practice in directing plays for their oral and visual value as theatre. A - Each student directs a one-act play. B - Each student directs two one-act plays or equivalent. (6 hours activity)

# 475A,B,C,E World Theatre (3,3,3,3)

Prerequisite: Theatre 200 and junior standing. An historical examination of significant developments in World Theatre and drama from the origins to the present. A - Origins to 1650; B - 1650-1900; C - 1900 to the present; E - Historical background and contemporary view of the musical theatre.

# 476 Design of Stage Mechanics and Rigging (3)

Prerequisites: Theatre 276, 279, Theatre 288 and consent of instructor. Evolution, theory and implementation of mechanics and rigging for the stage. Emphasis on current practices and future implications.

# 477A Seminar in Critical Techniques (3)

Prerequisite: Theatre 200. Major critical theories in theatre.

# 477B Seminar in Writing Critical Techniques (3)

Prerequisite: Theatre 200. Practical criticism as applied to local dramatic productions. Fulfills the university upper-division baccalaureate writing requirement for theatre arts majors.

# 478A,B Production and Performance (2,2)

- Performing in stage or camera productions.
- B. Technical crew work on stage or camera performances. One section of 478B per semester required of all theatre and dance majors as well as non-majors cast in theatre and dance department productions. (More than 6 hours activity) (Same as Dance 478A)

# 479 Computer Aided Design For Theatre Design and Production (3)

Prerequisites: Theatre 276, 277, 279, 288, 386, 379, and consent of instructor. Advanced theatre design and technical production with emphasis on the computer as a design and drafting tool. Applications include Minicad 6.01 and Painter 4.0. This course may be repeated for credit.

# 482A,B Acting IV: Camera Techniques for Actor and Director (3,3)

Prerequisites: Theatre 363A,B or Theatre 370 A,B. Theatre 482A is a prerequisite to 482B. The adaptation of stage acting/directing techniques for the camera, audition, rehearsal and final performance project, utilizing studio equipment. A - Development of camera acting/directing techniques; B - Production of varied dramatic presentation for broadcast. (6 hours activity)

# 483 Advanced Acting Workshop (3)

Prerequisites: Theatre 463A,B and audition. Extensive scene study, based on particular needs and problem areas of the advanced acting student. (6 hours activity)

# 485 Advanced Theatre Makeup (3) (Formerly 385)

Prerequisite: Theatre 285. Problems in makeup including special techniques and materials: prosthetics, hairpieces, and masks for stage and television productions. (6 hours activity) May be repeated once for credit.

# 486 Advanced Lighting Design (3)

Prerequisites: Theatre 386 or consent of instructor. Design and technology of lighting for the stage and television. (6 hours activity) May be repeated for credit.

# 487 Advanced Audio Techniques (3)

Prerequisite: Theatre 387 or consent of instructor. Advanced problems in the design and technology of live and recorded sound used in the performing arts. (6 hours activity)

# 488 Advanced Design and Production (3)

Prerequisites: Theatre 276A, 277, 279, 288 and consent of instructor. Advanced design, coordination of scenery and/or costume design projects for various theatres and television. May be repeated for credit.

### 493 Individual Voice Instruction (1-2)

Prerequisite: jury recommendation, Individual voice study with approved instructor. Emphasis on technique and repertoire. BFA Musical Theatre Majors must register for one unit each semester of residency up to a maximum of 4 semsters. May be repeated for credit.

# 495 Theatre Internship (3)

Consent of appropriate faculty supervisor. Supervised work experience in all areas of theatre to expand the dimensions of the classroom by integrating formal academic training with direct application. Periodic seminar meetings to discuss work.

# 497 Production and Performance Projects in Theatre (1-3)

Prerequisites: upper division standing and consent of instructor; application form with appropriate signatures must be on file in department office prior to registration.

Projects which culminate in production or performance. May be repeated for credit.

### 499 Independent Study (1-3)

Prerequisites: upper division standing and consent of instructor; application form with appropriate signatures must be on file in department office prior to registration.

Undergraduate research projects. May be repeated for credit.

# 500 Introduction to Graduate Study in Theatre (3)

Methodological problems in graduate research. Location of source materials, including library and original data; interpretation of research and practice in scholarly writing. Must be taken the first semester after admission to graduate study.

# 501 Graduate Seminar: Advanced Theatre Theory (3)

Prerequisite: Theatre 500. Directed research; the relationship between historical backgrounds and developments in the theatre and the student's area of concentration.

# 541 Voice and Movement for the Actor (2)

Prerequisite: audition. Corequisite: Theatre 563. Development and con-ditioning of the actor's voice and body, with an emphasis upon understanding and transforming the actor's use of his/her vocal and physical instrument. Required of first and second year M.F.A. students. May be repeated for credit.

# 543 The Performer and the Professional Theatre (3)

Prerequisite: Theatre 443 and audition. Continues techniques and strategies used by the performer in accessing the professional environments of live theatre, film, and television, including the selection, preparation and performance of dramatic material for a professional acting showcase.

# 563 Acting Studio (4)

Prerequisite: audition. Re-creation and interpretation of roles utilizing period and contemporary dramatic literature, interrelating voice, movement, characterization and period style acting. Enrollment limited to M.E.A. students. May be repeated for credit.

# 565 Dramatic Textual Analysis (3)

Prerequisite: graduate standing. The process of translating a dramatic text to theatrical production, with an emphasis upon the techniques of perception, imagination, and integration used by the theatrical artist in developing a concept and determining specific performance choices.

# 566 Seminar in Technical Production (3)

Prerequisite: consent of instructor.

Advanced theories in the preparation and installation of scenery for theatrical production; engineering drawings, exploration of materials, and research into new methods of theatre technology. May be repeated for credit up to six units.

# 570A,B Styles of Directing/ Performance (3,3)

Prerequisites: Theatre 470A,B or consent of instructor. Research in the theories of directing and acting styles and practice in directing and performance of period plays. A - Staging and acting problems from Greek tragedy through the Restoration. B - Staging and acting problems from recent classical work (Ibsen, Strinberg, Chekhov) to present. May be repeated once for credit.

# 573 Seminar in Dramatic Literature (3)

Directed research and criticism in the examination of contributions of major dramatists or dramatic genres. Emphasis on dramatic analysis.

# 575 Seminar in Theatre History (3)

Directed research and criticism in the examination of significant historical periods or movements in theatre history. May be repeated for credit.

# 577 Graduate Seminar: Costume Design (3)

Prerequisite: consent of instructor.

Costume production problems and their solutions. Examination of specific designers, past and present. Research in practical methods of interpreting the designer's sketch.

May be repeated for credit up to six units.

# 578 Graduate Seminar: Scene Design (3)

Prerequisite: consent of instructor. Scenic design projects involving in-depth production style and scheme development. May be repeated for credit up to six units.

# 582A,B Camera Techniques for the Actor and Director (3,3)

Prerequisites: Theatre 541 and 563.
Theatre 582A is prerequisite to 582B. An indepth study of the process and performance of camera techniques utilized by actor and director. Includes camera compatibility, rehearsal, acting and directing methods. A - Development of screen acting and directing techniques. B - Production of varied dramatic presentations for broadcast.

# 583 Graduate Seminar: Acting (3)

Prerequisites: Theatre 463A,B.

Investigation and delineation of current acting methods as techniques for solving problems presented by popular dramatic literature. Development of a personal acting philosophy and methodology. May be repeated once for credit.

# 586 Graduate Seminar: Lighting Design (3)

Prerequisite: consent of instructor.

Advance theoretical lighting design projects.

Production problems and their solutions.

Examination of specific designers, past and present. May be repeated for credit up to six units.

# 588A,B Graduate Projects in Design and Technical Theatre (3,3)

Theoretical projects and designs for productions prior to final projects. Faculty and student critiques. Tailored to individual student needs. Enrollment limited to M.F.A. students.

# 597 Project (1-3)

Prerequisites: consent of instructor, student's graduate committee and department executive committee. Development and presentation of a creative project beyond regularly offered coursework. May be repeated for credit up to six units. Student must complete course application form by the end of the seventh week of the semester preceding that in which the work is to be done.

### 598 Thesis (3)

Prerequisites: consent of student's graduate committee; application form with appropriate signatures must be on file in department office prior to registration.

Development and presentation of a thesis in the student's area of concentration.

# 599 Independent Graduate Research (1-3)

Prerequisites: consent of student's graduate committee and instructor; application form with appropriate signatures must be on file in department office prior to registration. Research in theatre. May be repeated for credit.

# THEATRE EDUCATION COURSES

# 442 Teaching Theatre in the Secondary School (3)

Prerequisite: admission to teacher education. Objectives, methods and materials for teaching in the secondary school.

# 449E Externship in Secondary Teaching (3)

See description under Department of Secondary Education.

# 449I Internship in Secondary Teaching (10)

See description under Department of Secondary Education.

# 449S Seminar in Secondary Teaching (2)

See description under Department of Secondary Education.

# women's studies

# INTRODUCTION

The major in Women's Studies emphasizes the study of cultural and international gender based movements, gendered experience, research, analysis, and theory, with women taken as a viable academic starting point, both as subjects and as researchers. Core courses that incorporate information technologies and community service learning experiences offer students (both men and women) opportunities to develop essential skills and civic commitments, as well as

links to the community and to businesses and professional sites where students will have opportunities to apply and evaluate the research, methods, and theories that they are studying. The major has wide applicability for men and women in relation to their



work in other disciplines and to career goals. Students have the opportunity to connect academic or career interests in ethnic or international studies or in specific disciplines to gender analysis through Independent Study units applied to their major.

NOTE: The B.A. in Women's Studies is pending approval by the Board of Trustees. Approval is anticipated by Fall 1999.

The minor in women's studies is designed for students (both men and women) who have a particular interest in learning more about the roles and status of women in society. Cross-disciplinary in structure, the minor draws from a wide variety of courses offered by many departments throughout the university. The goals of the minor are to apply concepts learned in women's studies courses to other academic areas, to encourage more students to do research in the area, and to prepare students in selected career paths where sensitivity to women's issues is important (particularly in business, education, counseling, human services, public administration, and the health professions, as well as in liberal arts degrees in general).

## **ADJUNCT FACULTY FROM OTHER DISCIPLINES**

Tony Bell (Sociology), Mei Bickner (Management), Michael Birnbaum (Psychology), Bert Buzan (Political Science), Soraya Coley (Human Services), Carol Copp (Sociology), Angela Della Volpe (Linguistics), Nancy Fitch (History), Thomas Fujita-Rony (Asian American Studies), Mikel Garcia (Human Services), Wacira Gethaiga (Afro-Ethnic Studies), Rosalie Gilford (Sociology), Kenneth Goodhue-McWilliams (Biological Science), Joan Greenwood (English), Hilla Israely (Sociology), Carl Jackson (Afro-Ethnic Studies), Helen Jaskoski (English), Judith Kandel (Biology), Karen Lystra (American Studies), Helen Mugambi (English), G. Nanjundappa (Sociology), Naomi Quiòonez (Chicano Studies), Jill Rosenbaum (Criminal Justice), Diane Ross (Kinesiology and Health Promotion), Terri Snyder (Liberal Studies, American Studies), Shari Starrett (Philosophy), Pam Steinle (American Studies), Julie Stokes (Afro-Ethnic Studies, Sandra Sutphen (Political Science), Patricia Szeszulski (Child and Adolescent Studies), Twenty-two

### PROGRAM COORDINATOR:

Sandra Sutphen (Political Science)

### PROGRAM OFFICE:

EC 475

# **PROGRAMS OFFERED**

Bachelor of Arts in Women's Studies Minor in Women's Studies

### **WOMEN'S STUDIES FACULTY**

Renae Brendin (Women's Studies)

points, plus triple-word-score, plus fifty points for using all my letters. Game's over. I'm outta here.Marjorie Tussing (Foreign Languages), Debra Winters (Art), Richard Wiseman (Speech Communication).

### STUDENT SERVICES

The Women's Studies Student Association and Discussing Women Club form an actively involved group of students which presents speakers, participates in colloquia and panel discussions, and coordinates social and instructionally related programs among students who are part of the Women's Studies program, and all others who are interested in gender related issues. One of the activities students have become involved in is contributing to the planning and participating in the program of the annual Pacific Southwest Women's Studies Association Conference, which CSUF hosted in 1997 and 1998.

# BACHELOR OF ARTS IN WOMEN'S STUDIES

The major consists of 38 units selected from the following categories:

# Core Requirements (17 units)

Women's Studies 105 Comparative and International Women's Movements (3)

Women's Studies 302 Introduction to Intercultural Women's Studies (3)

Biology 360 Biology of Human Sexuality (2)

Women's Studies 350 Research, Methodology, and Writing (3)

Women's Studies 450 Theory, Practice, Internship, and Community Service (6)

# Breadth Requirements (9 units, chosen from among the following)

American Studies 450 Women in American Society (3)

Anthro 432 Women in Cross-Cultural Perspective (3)

Poli Sci 485 Women and Politics (3)

Psychology 310 Psychology of Women (3)

Women's Studies 312 Multicultural Identities and Women's Experience (3)

Women's Studies 343 Philosophy and Feminism (3)

Elective Options (12 units, chosen from among the following or from additional breadth requirement)

Afro Ethnic 311 Intracultural Socialization Patterns (3)

American Studies 413 The Shifting Role and Image of the American Male (3)

American Studies 419 Love in America (3)

American Studies 420 Childhood and the Family (3)

Art 401 History of Women Artists (3)

Chicano 406 La Chicana (3)

Crim Jus 430 Women and Crime (3)

English 355T Images of Women in Literature (3)

French 485T Senior Seminar in French Literature\* (3)

German 485T Senior Seminar in German Literature\* (3)

History 424 Gender and Sexuality in Modern European History (3)

History 449 Race, Ethnicity, and Gender in Latin America (3)

History 477 Women's Image in American Film (3)

Kinesiology 480 Women and Sport (3)

Linguistics 369 Language, Sex Roles, and the Brain (3)

Management 431 Women in Management (3)

Music 305 Women in Music (3)

Nursing 303 Women's Health and Healing (3)

Poli Sci 474 Civil Liberties (3)

Psychology 312 The Psychology of Human Sexual Behavior (3)

Sociology 407 Women in Contemporary Society (3)

Sociology 408 Sexual Abuse in American Society (3)

Sociology 450 Sociology of Sex Roles (3) (Moved from breadth requirement)

Women's Studies 101 Introduction to Ethnic Studies (3)

Women's Studies 308 Asian American Women (3)

Women's Studies 310 Black Women in America (3)

Women's Studies 406 La Chicana (30) Women's Studies 410 Analyzing Images Linking Aging, Health, and Gender (3)

Women's Studies 480T Variable Topics Course (3)

Women's Studies 499 Independent Study (1-3)

Variable Topics or Independent Study (1-3) (can be arranged through various departments) \*When listed in the schedule with an emphasis on women

### MINOR IN WOMEN'S STUDIES

The minor consists of 23 units, selected from the following categories:

# Core Courses (5 units)

Women's Studies 302 Introduction to Intercultural Women's Studies (3)

Biology 360 Biology of Human Sexuality (2)

### Breadth Courses (9 units)

Nine additional units chosen from courses listed as core or breadth requirements (listed in major requirement above).

# Elective Courses (9 units)

Nine additional units selected from core, breadth, or electives (listed in major requirements above).

### **WOMEN'S STUDIES COURSES**

101 Introduction to Ethnic Studies (3)
(Same as Afro-Ethnic 101)

# 105 Comparative and International Women's Movements (3)

No prerequisites. A comparative introduction to a variety of international movements which have sought and continue to seek changes in regard to the conditions and status of women.

# 302 Introduction to Intercultural Women's Studies (3)

Prerequisite: Either Philosophy 100, Biology 101, Psychology 100, Sociology 100, or consent of instructor. Interdisciplinary introduction to intercultural women's issues and research in relevant disciplines. (Same as Philosophy 302).

# 308 Asian American Women (3) (Same as Asian Amer 308)

310 Black Women in America (3) (Same as Afro-Ethnic 310)

# 312 Multicultural Identities and Women's

(Same as American Studies 312)

# 343 Philosophy of Feminism (3)

(Same as Philosophy 343)

Experience (3)

# 350 Research, Methodology, and Writing (3)

Prerequisite: Womenis Studies 105, 302, or equivalent. Study of methodological approaches to gender issues, e.g. survey analysis, oral history, personal narrative, ethnography, development of research skills, including computer applications; development of writing skills, including research papers.

### 406 La Chicana (3)

(Same as Chicano Studies 406)

# 410 Analyzing Images Linking Aging, Health and Gender (3)

At least one prerequisite: A gerontology course, Women's Studies course, or senior standing. Applications of various forms of critical analysis to media/artistic depictions of the aging process (e.g., in film, advertising, painting, literature), particularly in regard to standards of health and disability as they are commonly applied to men and women.

# 450 Theory, Practice, internship, and Community Service (6)

Prerequisite: Women's Studies 350. Twotiered course which studies and evaluates analysis of theory and practice and which incorporates a semester long on-site community based learning component. Applications of theory evaluated through in-class and Internet discussion and writing projects.

# 499 Independent Study (1-3)

Prerequisite: approval by instructor teaching a Womenis Studies class, or by
Coordinator of Womenis Studies. An opportunity to do research in Womenis Studies, or to link an interest in another discipline to an interest in Womenis Studies.

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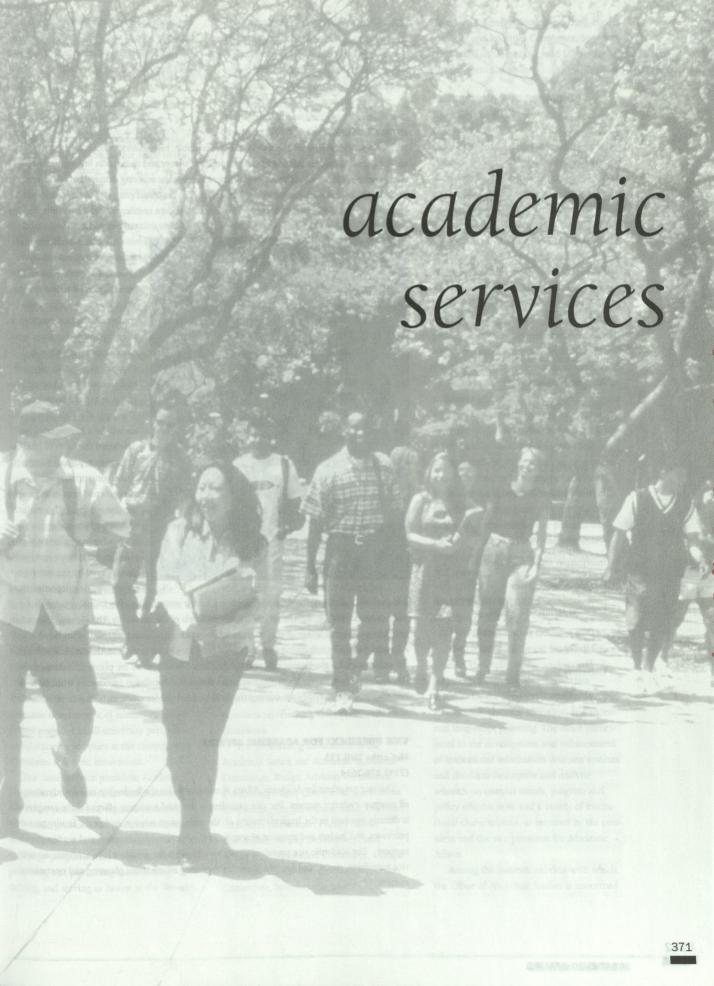
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343 Philosophy of Feminism (3) (Same as Philosophy 343)



# academic affairs

# ACADEMIC AFFAIRS

Vice President for Academic Affairs

Academic Advisement Center

Academic Programs

Academic Senate

Admissions and Records

Analytical Studies

Athletic Academic Services

Center for Internships and Cooperative Education

Faculty Affairs and Records

Faculty Mentor Program

Graduate Studies

Grants and Contracts

Information Technology Services

International Programs

Learning Technology Center

Paulina June and George Pollak Library

University Extended Education

Writing Center

### INTRODUCTION

California State University, Fullerton offers affordable, high quality undergraduate and graduate programs that reflect the best of current practice, theory and research in linking professional studies with preparation in the arts and sciences to meet the evolving demands of our diverse students, as well as our local community and state. The academic programs available include 52 bachelor's degrees, 45 master's degrees, 47 minors, 5 resident certificates and 11 teaching creden-

tial programs.

One of the most important features of the university's mission and goals is to make learning central to our campus. We aspire to this vision by combining the best qualities of teaching and research universities in supporting actively engaged students, faculty and staff who work in close collaboration to expand knowledge. The mark of a Fullerton graduate will be a person who has developed the habit of intellectual inquiry, prepared for a challenging profession, strengthened relationships with the community, and contributes productively to society.

Academic excellence is provided in the various specializations offered by the university by encouraging departments

and professional schools to develop programs for their majors through a formal process that ensures careful and thoughtful review by various levels of the university. The General Education Program is designed to assure that graduates have made significant progress toward being a well-educated person by integrating into the major programs broad courses in the physical sciences, the social sciences, the humanities, and the fine arts. These courses are planned to complement those offered through the major programs and electives. Articulation agreements with the local community colleges clarify the courses that will be accepted for credit in both general education and major programs.

# **VICE PRESIDENT FOR ACADEMIC AFFAIRS**

McCarthy Hall 133 (714) 278-2614

The vice president for Academic Affairs is responsible for the leadership and coordination of all campus academic matters. The vice president is the chief academic officer for the campus and is directly involved in the implementation of the university's mission and goals, faculty personnel processes, and budget and resource allocation as they pertain to instruction and academic support. The academic vice president works closely with the president, the academic associate vice presidents, deans, and program directors regarding all academic planning and operational matters.

Information concerning the academic programs of Cal State Fullerton may be obtained from the Office of the Vice President for Academic Affairs. This information may include:

- The current degree programs and other educational and training programs;
- The instructional, laboratory, and other physical plant facilities that relate to the academic program;
- The faculty and other instructional personnel;
- 4. Data regarding student retention at Cal State Fullerton and, if available, the number and percentage of students completing the program in which the student is enrolled or has expressed interest; and
- 5. The names of associations, agencies or governmental bodies that accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain or review upon request a copy of the documents describing the institution's accreditation, approval or licensing.

# **ACADEMIC ADVISEMENT CENTER**

University Hall 179 (714) 278-3606

The Academic Advisement Center provides information and guidance in the choice of an undergraduate major or selection of elective and general education courses. It is the administrative center for undergraduate students who have not declared a major. Refer to the Academic Advisement section for additional information.

# **ACADEMIC PROGRAMS**

McCarthy Hall 129 714) 278-2618

The Office of Academic Programs coordinates the development of educational programs; provides an all-university perspective on educational activities at the campus; and stimulates academic innovations.

The associate vice president, Academic Programs is responsible for administering university policies and regulations dealing with undergraduate and graduate curricula; fostering and administering institutional exchange programs with foreign universities; preparing and publishing the university catalog; and serving as liaison to the Western

Association of Schools and Colleges (WASC) and other accrediting agencies.

The Office of Academic Programs provides leadership for the Curriculum
Committee, General Education Committee,
Graduate Education Committee,
International Education Committee and
other groups and individuals concerned with
assessing and strengthening the educational
programs of this institution. Responsibilities
relating to the Chancellor's Office include
regular review and updating of the Academic
Master Plan; coordination of program performance review; and staff reports for the
Chancellor's Office relating to academic planning.

### **ACADEMIC SENATE**

McCarthy Hall 143 (714) 278-3683

The Academic Senate is an integral part of the university governance processes which encourage participation in collegial decision making. The Senate develops, formulates and reviews educational and professional policy which becomes university policy if approved by the president. Educational and professional policy includes: curricula; academic standards; criteria and standards for the selection, retention and promotion of faculty members; academic and administrative policies concerning students; and allocation of resources. There are 15 standing committees of the Senate and three general committees of the faculty. The Senate consists of 45 members including the university president, vice president for Academic Affairs, two Associated Students representatives, three elected CSU academic senators, the president of the exclusive bargaining representative for Unit 3, a member of the Emeritus Professors of CSUF the immediate past chair of the Academic Senate (except when the incumbent chair is re-elected), and 35 elected members representing various campus constituencies

The 15 standing committees of the Academic Senate are: Academic Standards Committee, Budget Advisory Committee, Computing Affairs Committee, Curriculum Committee, Elections Committee, Extended Education Committee, Faculty Affairs Committee, Faculty Development and Educational Innovation Committee, General Education Committee, Graduate Education Committee, International Education

Committee, Library Committee, Long-Range Planning and Priorities Committee, Student Academic Life Committee, and University Advancement Committee.

### **ADMISSIONS AND RECORDS**

Langsdorf Hall Lobby (714) 278-2300

The Office of Admissions and Records is responsible for the administration of the admission, registration, records, and other academic services to undergraduate and graduate students in the regular sessions of California State University, Fullerton. These programs and services provide preadmission guidance to prospective students and current information about the university's curricula and requirements to school and college counselors; admit and readmit students within enrollment categories and priorities; evaluate the applicability of undergraduate transfer credit toward all-university requirements of the curriculum; provide liaison in the identification and resolution of articulation problems of transfer students; register student programs of study, including enrollment into classes; maintain academic records; administer academic probation and disqualification policies; provide enrollment certifications on student request, including transcripts of academic records to the Veterans Administration and for other purposes; certify the completion of degree requirements; receive petitions for exceptions to academic regulations; and provide information about these programs and services.

# **ANALYTICAL STUDIES**

McCarthy Hall 136 (714) 278-4205

The Office of Analytical Studies is responsible for the organization, analysis and presentation of the information and data essential for the support of campus policy formulation, resource allocation, and short-and long-range planning. The office participates in the development and enhancement of institutional information database systems and conducts descriptive and analytic research on campus trends, program and policy effectiveness, and a variety of institutional characteristics, as required by the president and the vice president for Academic Affairs.

Among the institutional data with which the Office of Analytical Studies is concerned

are student and faculty demography, student progress, enrollment, curriculum and scheduling, space and facilities utilization, testing, workload, regional demography, affirmative action, budget and program performance review.

The Office of Analytical Studies produces and publishes regular campus reports such as the Statistical Handbook, as well as relevant reports required by the Chancellor's Office and other agencies.

### ATHLETIC ACADEMIC SERVICES

Faculty Terrace-North 301 (714) 278-3057

As an integral part of the CSUF student advising system, the Office of Athletic Academic Services provides advisement for student-athletes; provides referrals to campus academic support units; and conducts programs that are designed to assist student-athletes in meeting their academic goals.

# CENTER FOR INTERNSHIPS AND COOPERATIVE EDUCATION

Humanities 112 (714) 278-2171

Internships offer students the opportunity to expand their knowledge and skills in a "real work" situation, which better prepares them to select a career and successfully enter the job market. Internships benefit students in many ways. They allow students the opportunity to:

- gain work experience
- network and develop industry contacts
- · earn academic credit
- · solidify academic and career goals
- · earn money while learning
- explore various career options within a major.

The cooperative efforts of the center, faculty members and employers create internship opportunities that fulfill the academic and professional needs of students. Each internship/co-op is supervised and monitored by an employer/mentor, while faculty coordinators provide guidance to students to ensure the academic integrity of the work experience.

Students can work part-time while attending regular classes or full-time for a semester or summer; continuing classes the following semester. Both paid and unpaid positions are available.

Cal State Fullerton currently has 45 academic programs that offer academic credit

related to internship/work experience. To participate in the internship/co-op program, a student must:

- · be at least in the junior year of study
- · be in good academic standing
- · receive approval from a faculty coordinator
- enroll in the departmental internship/ co-op course.

The on-site activities must be consistent with the goals of the student's academic discipline. In most departments, up to six units of internship credit may be earned. With Faculty Internship Coordinator approval, students may be able to use a current job position as an internship for academic credit. Students who decide to seek internships at the beginning of their upper-division course work will have the most opportunities.

For further information, contact the center for Internships/Cooperative Education. The center is open 8 a.m. to 5 p.m., Monday through Friday.

# FACULTY AFFAIRS AND RECORDS

McCarthy Hall 142

(714) 278-2125

The Office of Faculty Affairs and Records is the official repository for documents and correspondence concerning full-time teaching and administrative faculty. It has responsibility for retaining documentation pertaining to employment, reappointment, tenure, promotion, leaves of absence, grievances, disciplinary actions and separations.

# UNIVERSITY MENTOR PROGRAM

Humanities 113 (714) 278-3709

The Faculty Mentor Program seeks to improve the retention and graduation of individual students with university personnel by matching interested students with a peer, a faculty member or staff member in a mentoring relationship. Mentors provide encouragement to the students with whom they work by: (1) serving as role models, (2) helping to build self-esteem, (3) supporting the student's educational and career goals, (4) providing general counsel, advice and referral, and (5) providing feedback on the student's progress.

# **FULLERTON FIRST YEAR PROGRAM**

Humanities 113 (714) 278-3709

Fullerton First Year is a yearlong program that provides a learning environment for firsttime freshmen and helps ensure their personal and academic success. Students participate in a two-semester commitment, enroll in preplanned courses for the first year at Cal State Fullerton, and actively participate in cocurricular and community activities. Contact the program office for applications.

### **GRADUATE STUDIES**

McCarthy Hall 129 (714) 278-2618

The staff of the Office of Graduate Studies assists students in answering questions about admission, academic policies and procedures, graduate programs, financial assistance, student services, and other matters of concern to applicants or graduate students. The office is also responsible for performing an evaluation of student programs at classification and completion of requirements for authorizing award of degree. Additional responsibilities related to students include probation and disqualification. leave of absence, annual thesis award, and various fellowships and scholarships.

# **GRANTS AND CONTRACTS**

McCarthy Hall 112 (714) 278-2106

The Office of Grants and Contracts provides assistance to faculty and staff in their efforts to obtain funding for research and other scholarly activities. The office offers pre-proposal consultation; information about funding opportunities; and assistance with budgets, regulatory compliance and editing of proposals. It also publicizes and administers intramural research grants and manages technology transfer activities. A small library is maintained to aid faculty in identifying grant resources and agency grant profiles.

# INFORMATION TECHNOLOGY SERVICES

Pollak Library L-260 (714) 278-3921

Information/Technology Services supports the campus with administrative computing, campuswide faculty and staff workstations, network services for e-mail and Internet access, and telephone services. Information Technology Services also provides a campuswide open computer lab serving 190 students concurrently and two advanced technology studio classrooms.

### INTERNATIONAL PROGRAMS

McCarthy Hall 129 (714) 278-2618

The Office of Academic Programs, in cooperation with the Office of International Education and Exchange, coordinates all aspects of the university's commitment to academic internationalization. It is responsible for overseeing and directing the internationalization of the curriculum. It also initiates and administers contacts with sister institutions throughout the world in order to foster the exchange of faculty and students.

For more information on specific opportunities to study abroad, either through the CSU systemwide International Program or direct links that CSU Fullerton has with foreign institutions, see the section of this catalog titled "International Education" on page 495.

### **LEARNING TECHNOLOGY CENTER**

Pollak Library - 48 (714) 278-3483

The Learning Technology Center, located on the lower level of the Pollak Library South Wing, offers a wide spectrum of media services and support equipment.

Classroom audiovisual support equipment available to faculty include: 16-mm motion pictures projectors, 35-mm carousel slide projectors, opaque projectors (books), overhead projectors, liquid crystal display (LCD) projectors, cassette recorders, record players, lecterns, projection screens and half-inch (1/2") VHS Playback (TV/VCRs), as well as sound systems.

Design and production services are available for a wide range of media. Graphics design is supported by computer technology and offers top-level design of maps, charts, diagrams, technical drawings, flow charts, etc., including camera ready copy and overhead transparencies. Photography offers studio and location photography, copy work, slide duplication, and color and black and white printing. Video services include VHS recording of campus events and tape duplication. Audio services include audio recording and amplification, and audio duplication and editing. Television production includes the design and production of instructional and information modules for use in the classroom, on The Titan Cable Channel, and other video delivery systems. Pre- and post-production services are available.

Instructional television delivery systems include Interactive Televised Instruction (ITI),

videoconferencing, and the Titan Cable
Channel (TTC). Two classrooms are designed
and equipped for distance education and currently deliver university classes to the Mission
Viejo and other off-campus locations, including workplace classrooms in businesses and
industry. Special telephone connections allow
students not located in the classroom on the
Fullerton campus to interact with instructors,
as well as with on- and off-campus classmates
in a "live" exchange of information and ideas.
A special video conference facility is available
for instruction and administrative use.

Satellite teleconferencing is provided in conjunction with Distance Learning in Extended Education. The Titan Cable Channel network makes CSUF programming available in cable systems throughout Orange County, such as Comcast, Multivision, Century Cable, Seal Beach Cable Communications
Foundation, and Paragon Cable.

For detailed information, contact the Learning Technology Center at (714) 278-3483.

# THE PAULINA JUNE AND GEORGE POLLAK LIBRARY

Pollak Library 260 (714) 278-2714

Chief among the learning resources on the campus is the Paula June & George Pollak Library. The Pollak Library consists of a sixstory South Wing and a newer four-story North Wing. Located in the center of campus, the Pollak Library houses a collection of over 700,000 books and bound periodicals, as well as one and a half million other items: government documents (federal, state, local and international); archival materials and rare items; maps; microforms; and non-print materials such as computer software, videotapes and compact discs. Books and other materials are selected through the joint efforts of library and other faculty to support the learning mission of the university.

As part of the university's learning mission, the Pollak Library offers a variety of instructional programs and services. Members of the library faculty conduct instructional sessions for CSUF classes in all disciplines, as well as workshops covering the Library's electronic resources. One-to-one instruction in the use of the Library's collections and services is available at the main Reference Desk and at the Library's other service desks. General library tours and orientation sessions are available for CSUF students, faculty and staff, and other campus-affiliated groups.

Primary access to the Pollak Library's holdings is provided by the electronic Outline Public Access Catalog (OPAC). OPAC provides access to books, periodicals, government documents and other materials through author, title, subject and other indexes. OPAC also provides a listing of materials that are required or recommended for course-related reading and are available through the Reserve Book Room. General information, such as the hours the Library is open, is also available on the OPAC.

Subject access to periodicals and other literature is provided via a variety of electronic databases, as well as through printed indexes and abstracts. These databases are available on computer terminals located in the Library and elsewhere on campus, as is the OPAC.

The Pollak Library's home page (http://www.library.fullerton.edu) serves as the gateway for remote access to the OPAC and other electronic databases. The Home Page also offers a wealth of information about the Pollak Library, its collections, services, faculty and staff. The Home Page, with its links to various types of Internet resources, can be accessed from computer workstations in the Electronic Resources Area, located near the Reference Desk. Docking stations for laptop computers with modems are also available throughout the North Wing of the Pollak Library. Remote access to the Library, as well as other Internet resources, is available through the Titan Access service.

The Titan Card issued by the university serves as a library card for checking out books and other materials. Library users are responsible for the return of all materials charged out on their ID cards.

In addition to the many resources available on campus and via the Home Page, mutual use agreements make accessible to students and faculty the library collections of the other 22 libraries in the California State University system and neighboring institutions such as Fullerton College. Intralibrary services provide easy access to library resources both at and from the Mission Viejo campus. Interlibrary borrowing arrangements with major university and research libraries throughout the country further expand the resources available to the CSUF community.

For the convenience of users, photocopiers and microform reader-printers are available in locations throughout the Pollak Library. These are operated with coins, or by using the Titan Card or electronically encoded copycards available for purchase in the Pollak Library. Other specialized facilities include music listening rooms, videotape viewing rooms, group study rooms, and a microform reading area.

# UNIVERSITY EXTENDED EDUCATION Building T-14 (714) 278-2611

University Extended Education offers the resources of the university to degree-seeking students and other lifelong learners through programs supported by participant fees, grants and contracts. It is a self-supporting, not-for-profit division of the university which receives no state funding. Programs include summer session, intersession, extension credit and non-credit courses, certificate programs, adjunct enrollment, and contract courses. Many Extended Education programs incorporate computer and television technologies in the delivery of instruction and can be made available to off-campus locations. Courses are taught by university faculty, visiting faculty, and practicing professionals. Most Extended Education programs are open to any adult and selected high school students. Additional information concerning University Extended Education programs may be found in the Academic Programs section of this catalog.

# WRITING CENTER

Humanities 528 (714) 278-3650

The Writing Center provides tutorial assistance primarily for students who are enrolled in English Department writing classes. However, tutors will also assist students who need help in writing papers for other university classes. Tutors offer individualized instruction, helping students write the kind of clear, concise prose necessary for academic and professional writing. While they will not proofread or edit papers, tutors do offer constructive suggestions designed to help the student master the techniques of proofreading and editing. The goal is to increase the student's competence, not to improve any given paper.

Tutors are also trained to help non-native speakers of English improve their writing skills. If a student needs intensive work on grammar, one-to-one tutoring in this skill is available and can be supplemented with

study materials. Additionally, the center has sample topics for the Examination in Writing Policiency (EWP), which students may write on and then receive tutorial feedback prior to the exam.

LEARNING TECHNOLOGY CENTER

# honors programs

# **DEAN'S HONOR LIST**

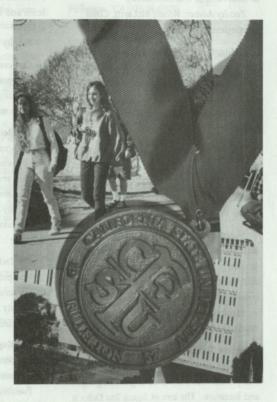
Academic achievement is recognized each fall and spring semester for undergraduate students whose grade point averages for the term are 3.5 or better for 12 units of graded course work. Students are notified in writing by their school dean's office when they have earned this distinction and a notation is placed on the student's academic record for that semester.

# **UNIVERSITY HONORS PROGRAM**

The University Honors
Program offers students many of
the educational benefits of a
small college in the midst of the
rich resources of a large university. The program's small class
sizes provide challenging learning experiences, individualized
attention from professors, and
closer interaction with other students.

The program also gives students the opportunity to earn recognition for distinguished academic performance. Students who successfully complete the requirements of the University Honors Program will have a notation placed on their transcripts and receive special recognition at graduation.

For additional information, please contact the Office of Academic Programs, MH-129, (714) 278-2618.



# **HONORS PROGRAMS**

Dean's Honor List

University Honors Program

Honors at Entrance

Honors at Graduation

Honor Societies

President's Scholars Program

# HONORS AT ENTRANCE

Honors at entrance are awarded to both freshman and transfer students who have demonstrated outstanding achievement in past academic work. For first-time freshmen with no previous college units earned, a grade point average of 3.5 on a four-point scale must be earned in the course work considered for admission to the university. Students who have completed fewer than 56 transferable semester units of credit must meet the grade point average criteria for first-time freshmen and must also have earned a 3.5 grade point average on all transferable college work attempted. Students who have completed 56 or more transferable semester units are eligible if a grade point average of 3.5 is earned in all transferable college work completed.

# **HONORS AT GRADUATION**

Honors at graduation for baccalaureate recipients are based on overall performance and have been defined by the Academic Senate in three classifications:

With honors g.p.a. 3.50-3.74 With high honors g.p.a. 3.75-3.89

With highest honors g.p.a. 3,90-4.00

### **HONOR SOCIETIES**

Chapters of seventeen honor societies have been chartered at California State University, Fullerton to recognize students who demonstrate superior scholarship and leadership in specific academic fields.

Alpha Kappa Delta—Promotes social research for the purpose of the improvement of the human condition and recognizes high scholastic achievement among juniors, seniors and sociology graduate students.

Faculty Adviser: Gerald Rosen

Alpha Phi Sigma—Criminal Justice Honor Society provides students with references for possible careers in the field of criminal justice. Participates in field trips to gain insight into the field.

Faculty Adviser: W. Garrett Capune, Criminal Justice

Beta Alpha Psi—Encourages and gives recognition to scholastic and professional excellence in the field of accounting.

Faculty Adviser: Kim Trantino, Accounting

Beta Gamma Sigma—Encourages and rewards scholarship and accomplishment among business administration and economics students.

Faculty Adviser: Douglas LaBahn, Marketing

Eta Kappa Nu—Recognizes students in electrical engineering—distinguished by scholarship, activities, leadership and exemplary character—and helps these students progress by association with alumni.

Faculty Adviser: David Cheng, Electrical Engineering

Kappa Tau Alpha—Recognizes scholastic achievement and encourages professional standards in mass communications. Membership is by invitation to seniors and graduuate students majoring in communications.

Faculty Adviser: Tony Rimmer,
Communications

Lambda Alpha—National anthroplogy honor society open to both graduate and undergraduate students that encourages and stimulates superior scholarship and professionalism among students in the field of anthropology.

Faculty Adviser: Lori Sheeran, Anthropology

Mu Phi Epsilon—Promotes high standards in education and performance in the professional world of music.

Faculty Adviser: Cynthia Ellis, Music

Omega Rho—Serves as a vehicle of recognition for outstanding students in the field of operations research.

Faculty Adviser: Joseph Sherif, Management Science and Information Systems

Phi Alpha Theta—Recognizes and encourages excellence in the study of history. Faculty Adviser: Gordon Bakken, History

Phi Eta Sigma—Designed for freshmanlevel students, with chapters on more than 300 campuses nationwide, it fosters superior scholarship, exemplary character and service to both campus and community.

Faculty Adviser: Robert McLaren, Child Development

Pi Sigma Alpha—Recognizes and encourages productive scholarship in the subject of government among junior, senior and graduate students.

Faculty Adviser: Barbara Stone, Political Science

**Psi Chi Honor Society**—Advances and maintains scholarship in the science of psychology.

Faculty Adviser: William Ray Smith and Duane Welch, Pychology

Sigma Phi Omega—Promotes scholarship, professionalism, friendship, and services to older persons, and recognizes exemplary attainment in gerontology/aging studies and related fields.

Faculty Adviser: William Ray Smith, Psychology

Sigma Tau Delta—Confers distinction for high achievement in undergraduate, graduate and professional studies in English language and literature. The aim of Sigma Tau Delta is to promote a mastery of written expression, to encourage worthwhile reading, and to foster a spirit of good fellowship among students of the English language and literature.

Faculty Adviser: Sally Romotsky, English

**Tau Beta Pi**—Promotes and encourages scholastic excellence and service among the top eighth of junior and the top fifth of senior students in all engineering disciplines.

Faculty Adviser: Peter Othmer, Mechanical Engineering

The Financial Management Association National Honor Society—Encourages and rewards scholarship and achievement in finance among undergraduate and graduate students. Eligible undergraduates must have junior or senior status in the major, with a

minimum 3.25 grade point average and 3.5 grade point average in three or more finance courses. Eligible graduate students must have completed one half of their required course work, and maintain a minimum 3.50 grade point average.

Faculty Adviser: Joseph Reising, Finance

The following five societies also recognize specialized groups of people, but are not limited to a specific academic field:

Golden Key National Honor Society— Promotes and recognizes scholastic excellence and service among juniors and seniors at CSUF.

Faculty Adviser: Kevin Colaner

Omicron Delta Kappa—Recognizes and encourages exemplary character and superior quality in scholarship and leadership.

Open to students with junior standing.

Phi Beta Delta—Honors excellence among international students, distinguishes faculty who have studied or done research abroad, and American students who have studied abroad.

Faculty Adviser: Robert B. Erickson, International Education & Exchange Program

Phi Delta Gamma—Promotes the highest professional ideals among students in graduate school.

Faculty Adviser: Gladys Fleckles, Graduate Studies Office

Phi Kappa Phi—Recognizes and encourages superior scholarship in all academic disciplines in institutions of higher learning.

Faculty Adviser: Charlene Mathe, Career Planning & Placement Center

# PRESIDENT'S SCHOLARS PROGRAM

In the tradition of California State
University, Fullerton's commitment to excellence, the President's Scholars Program recognizes the outstanding achievements of a select group of students. Based solely on merit, this scholarship program recognizes incoming freshmen who have demonstrated excellence in academic achievement, leadership ability and community service. Cal State Fullerton's premier merit program began in 1979 with the first 10 President's Scholars, and each year a new group of additional scholars is selected.

President's Scholars hold a prestigious position at Cal State Fullerton. They receive

full tuition and fees for four years while maintaining program eligibility. In addition, President's Scholars: receive an annual allowance of \$550 for books and supplies; are automatically admitted to the University Honors Program; are granted priority registration and consideration for on-campus housing in a designated honor's area; receive complimentary parking permits for fall and spring semesters; are offered up to 20 hours per week of on-campus employment; participate in special seminars; are hosted at numerous social, cultural and athletic events; and receive letters of recommendation from the president of the university. Beginning in fall 1999, incoming freshmen will each have personal use of a new computer during their four-year program.

To be eligible for consideration, an applicant must:

- Attain a grade-point average of at least
   3.75 in all academic subjects for the
   10th, 11th and first half of the 12th
   grades, or earn a Scholastic Aptitude Test
   or an American College Test composite
   score that is well above average. A
   minimum CSU eligibility index of 4050
   is required.
- · Graduate from high school.
- Show evidence of significant contributions to school and community activities during high school.
- Verify outstanding individual achievement
- Apply to California State University,
   Fullerton as a first-time freshman prior to
   applying for the President's Scholars
   award.
- Be a legal resident of California.
   Residency is determined by the Office of Admissions and Records for fee purposes.
- Submit a completed President's Scholars application form and arrange for the Secondary School Report and two Description and Evaluation Forms to be completed by officials at your high school, SAT or ACT scores, and an official transcript showing grades for the 9th, 10th, 11th and the first semester of your senior year in high school.

National Merit Scholar semifinalists and finalists are offered automatic status as

President's Scholars if they are legal residents of California (residency is determined by the

Office of Admissions and Records for fee purposes), are high school graduates, apply to Cal State Fullerton as first-time freshmen, and submit the National Merit Scholar Certification Form and a copy of the National Merit Scholarship Corporation notification letter.

Application forms for the President's Scholars Program are available by calling (714) 278-2407, or by writing the President's Scholars Program Screening Committee, California State University, Fullerton, University Hall 229, P.O. Box 6870, Fullerton, CA 92834-6870.

The National Merit Scholarship
Certification Forms are available by calling
(714) 278-7418, or by writing to the Office
of the Executive Vice President, California
State University, Fullerton, Langsdorf Hall
900, P.O. Box 6810, Fullerton, CA 92834-

# institutes

# INSTITUTES AND CENTERS

California Desert Studies Center Center for Business Studies Center for California Public Archeology Center for Careers in Teaching Center for Children Who Stutter Center for Collaboration for Children Center for Demographic Research Center for Economic Education Center for Ethnographic Cultural Analysis Center for Excellence in Science and Mathematics Education

Center for Governmental Studies Center for Insurance Studies Center for International Business Center for Molecular Structure Center for Nonprofit Sector Research Center for Successful Aging Centers for Life Span Development

Child Study Center Developmental Research Center Decision Research Center Faculty Development Center Family Business Council Foreign Language Laboratory Grand Central Art Center Institute for Economic and Environmental

Institute for Molecular Biology and Nutrition

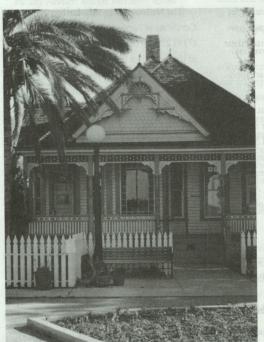
Laboratory of Phonetic Research North Orange County Leadership Institute Ocean Studies Institute/Southern

California Marine Institute Real Estate and Land Use Institute Ruby Gerontology Center Small Business Institute Social Science Research Center Sport and Movement Institute Tucker Wildlife Sanctuary Twin Studies Center

# CALIFORNIA DESERT STUDIES CENTER

McCarthy Hall 387 (714) 278-2428

The California Desert Studies Center, in the Mojave National Preserve at Zzyzx, California, 11 miles southwest of Baker, California on I-15, is a moderately equipped field station of the California State University system. The center provides opportunities for individuals and groups to conduct research, receive instruction, and experience the desert environment. The center



manages 1,280 acres under a cooperative management agreement with the Department of Interior. As the gateway to the entire Mojave National Preserve and Death Valley National Park, there is easy access to fossil sites, the remains of Indian villages, historical wagon trails, old army forts, mining sites, and the salt flats of Silurian and Soda Dry Lakes. Research and educational offerings include the Kelso Sand Dunes, Devil's Playground, Cima Volcanic Field, Cima Dome, the Providence, Granite, and New York mountain ranges and Landfair and Ivanpah Valleys. Elevations range from 945 feet at the center to over 6,000 feet at Pinto Mountain in the New York Range.

The Desert Studies Center can accommodate 70 individuals in

dormitory-style rooms. There is also a multi-station kitchen, bathhouse, laboratory, computer lab, two classrooms and a modest library.

For more information about the use of the center, contact the Desert Studies Center, Department of Biological Science, California State University, Fullerton, California 92834 or dsc@fullerton.edu.

# CENTER FOR BUSINESS STUDIES (CBS)

Langsdorf Hall 700 (714) 278-2212

Fax (714) 278-7101

The Center for Business Studies develops and conducts research, consulting and training programs for domestic and international organizations, both in the private and public sectors. The focus of such programs is on management and organizational development, formulation and implementation of strategic and tactical activities, analysis of microeconomic policy impacts on organizations, and effective resource utilization. The center also serves as the contact point for individuals and organizations seeking the expertise of our faculty members. In addition, it provides qualified support for faculty research on local, regional and transnational issues.

# CENTER FOR CALIFORNIA PUBLIC ARCHEOLOGY

Humanities 311

The Center for California Public Archeology houses archeological material (much of it from Orange County) and sponsors and conducts a variety of activities for CSUF students and the community. Through field work, donations and permanent curation agreements, the center has accumulated an extensive collection (about 4,000 cubic feet). With its laboratory equipment, computer facilities, comparative collections and research library, the center serves as a source for other colleges and universities, as well as professional archeologists in public agencies and private organizations. Students, alumni and other qualified community members may borrow these materials for presentations in elementary and secondary schools, and CSUF students may earn their master's degrees by curating exhibits of public interest.

# CENTER FOR CAREERS IN TEACHING University Hall 178

(714) 278-7130

The Center for Careers in Teaching provides up-to-date, accurate information to students aspiring to enter the teaching profession. Undergraduates who plan to become elementary, middle school, high school or special education teachers are encouraged to come to the center for early advisement in order to best prepare for the credential programs at Cal State Fullerton. With proper planning, students can earn a preliminary teaching credentiual and a bachelor's degree within four years, rather than waiting until after graduation to enter a credential program. The Center for Careers in Teaching also provides information seminars throughout the semester where students learn about the various credential program requirements, how to efficiently blend general education, major and credential program requirements, and what they should be doing in other areas to prepare for the credential programs.

The Center for Careers in Teaching also works with local community colleges to facilitate the transition of transfer students who are planning to become teachers. The center's staff members meet with community college counselors to develop specific transfer plans for prospective teachers and are available to give classroom presentations upon request. Transfer students are encouraged to contact the center for information before their first semester at Cal State Fullerton.

# **CENTER FOR CHILDREN WHO STUTTER**

Education Classroom 683 (714) 278-4570

The Center for Children Who Stutter provides assessment and treatment for young children who stutter. These very young children require state-of-the-art prevention and treatment provided by professionals who are experts in stuttering.

Education and research to improve services for children who stutter are also goals of the Center for Children Who Stutter. The CCWS was a logical extension of a four-year study (1992-1996) funded by the National Institutes of Health that provided guidance in the selection of assessment and treatment approaches and access to the families of children who stutter in our service area. The center provides internships for students who are in the Communicative Disorders master's program. Also, workshops are available for practicing speech pathologists to update their knowledge of fluency disorders.

The CCWS is supported by the Department of Speech Communication and the School of Communications. The University Advancement Foundation helps raise funds and provides business management. The center works closely with the National Stuttering Project, a self-help group for people who stutter and the Stuttering Foundation of America.

# CENTER FOR COLLABORATION FOR CHILDREN

Education Classroom 424 (714) 278-3313

The Center for Collaboration for Children, founded in 1991, is a California State
University systemwide initiative and is part of the School of Human Development and
Community Service. The primary focus of the center is to meet the needs of children and families by promoting collaborative, crossagency efforts that use school-based and community-based models serving the whole child in that child's family and community.

The mission of the center is to improve the California State University system's capacity to meet the needs of children and youth in the 21st century. The CSU is the primary source of education and training for thousands of professionals who serve children in California, such as nurses, teachers, social workers and counselors.

The center's goals are: (1) to work across disciplines to strengthen the ability of profes-

sionals to help children and families; (2) to develop models of multicutlural collaboration for the wellbeing of children and families; (3) to facilitate interagency collaboration about community organizations, school districts, public agencies and the university; (4) to revise university course curriculum, fieldwork placements and in-service education in support of these goals; and (5) to conduct ongoing policy research and data collection that enhances the goals of the center. A multidisciplinary team of faculty on participating CSU campuses works to implement these goals in collaboration with the director of the center, Sid Gardner.

# CENTER FOR DEMOGRAPHIC RESEARCH

McCarthy Hall 59 (714) 278-3185

The major focus of the Center for
Demographic Research is the population and
demography of Orange County. The center is
supported by a consortium consisting of the
County of Orange, the County Sanitation
Districts of Orange County, the Orange
County Division of the League of California
Cities, the Orange County Transportation
Authority, the Transportation Corridor
Agencies and a group of three water districts.
The center is hosted and partially supported
by California State University, Fullerton.

Population estimates and projections by select characteristics for a variety of geographic areas constitutes the basic functioning of the center. These efforts are in support of both operational and long-range planning activities of various government agencies, other public or quasi-public agencies and private organizations. Staff members of the center are engaged in a variety of collaborative activities and research including: SCAG regional planning efforts; transportation modeling data preparation and professional support of county, city, special districts and local non-profit agency planning and evaluation efforts.

# CENTER FOR ECONOMIC EDUCATION Langsdorf Hall 530 (714) 278-2248

The Center for Economic Education is one of many such centers at colleges and universities in the United States working with the EconomicsAmerica—National Council on Economic Education at the national level and the EconomicsAmerica of California to expand economic understanding. Center programs

include services to schools and colleges, individual educators, and the community; research and professional training; and operation of an economic education information center. The center is located in the School of Business Administration and Economics.

# CENTER FOR ETHNOGRAPHIC CULTURAL ANALYSIS

McCarthy Hall 409

The Center for Ethnographic Cultural Analysis combines training in ethnography (as a technique of observing, recording and writing about other cultures) with various forms of cultural analysis (both quantitative and qualitative). It promotes innovative educational projects, conferences, seminars and workshops. The center also serves as a resource for schools and businesses within the community that may wish to draw upon the expertise of anhropology students and faculty who are trained to observe, record and analyze the qualitative complexity of human behavior.

# CENTER FOR EXCELLENCE IN SCIENCE AND MATHEMATICS EDUCATION

McCarthy Hall 527 (714) 278-4558

The Center for Excellence in Science and Mathematics Education is a joint venture of the School of Natural Science and Mathematics (NSM) and the School of Human Development and Community Service (HDCS). The primary functions of the center are:

- 1. Coordinate K-12 science and math education activities on campus.
- Support efforts for obtaining external funds for the improvement of science and math education.
- 3. Enhance outreach activities with area schools and educators.
- 4. Publicize existing science and math education programs at CSUF.
- Promote increased access to science and mathematics to all students, especially underrepresented minorities, women and bilingual speakers.
- Foster discussion and develop innovative ideas regarding current issues and methods in mathematics and science education.
- 7. Promote collaboration between NSM and HDCS faculty in improving science and

math education and classroom teaching.

An advisory committee, which consists of faculty members from CSUF and community colleges, K-12 teachers and industry representatives, provides guidance for program development.

# CENTER FOR GOVERNMENTAL STUDIES

University Hall 511 (714) 278-3521

The Center for Governmental Studies supports research, training and publication which assist governmental, professional and civic groups. It is housed in the Division of Political Science and Criminal Justice and draws upon departmental, community and alumni expertise. The institute publishes monographs and books, sponsors training programs, and supports theoretical and applied research which are of interest to public policy makers. Institute funds also assist in supporting the teaching mission of the department.

# CENTER FOR INSURANCE STUDIES

Langsdorf Hall 526 (714) 278-3679

The Center for Insurance Studies was established by the Department of Finance in the School of Business Administration and Economics during the 1997-1998 academic year. Operating strategies are being developed with the help of industry professionals.

The goal of the Center for Insurance
Studies is to create an organization that
attracts and educates talented individuals
who are committed to professional careers in
the industry including property, life, benefits,
risk management, and health care components. The emphasis will be on careers in
actual analysis, claims, financial planning,
marketing, risk management, portfolio management, sales, technology and underwriting.

# CENTER FOR INTERNATIONAL BUSINESS

University Hall 313 (714) 278-2223

The need for an international dimension to business education is underscored by the importance of international business operations to domestic firms and the development of multinational firms and agencies. Equally important is a growing awareness of the diversity among the world's cultures and

economies, and an understanding of an unavoidable interdependence among nations. The International Business Center has undertaken to meet these challenges in the international area by developing international business programs with the School of Business Administration and Economics.

# CENTER FOR MOLECULAR STRUCTURE McCarthy Hall

(714) 278-3952

The W.M. Keck Center for Molecular Structure (CMolS) is the first comprehensive X-ray diffraction and computational facility at a predominately undergraduate institution. It has been designed as a core facility for research and education in molecular structure by the California State University Program for Research and Education in Biotechnology (CSUPERB). Professor Katherine Kantardjieff, an accomplished crystallographer and physical chemist, currently serves as director of CMolS.

Molecular structure studies at CMolS are providing answers to important questions about the molecular basis of disease and photochemical conversion and storage of solar energy, as well as helping CSU faculty and students to design novel materials, catalysts and organic synthetic reagents.

# CENTER FOR NONPROFIT SECTOR RESEARCH

University Advancement, College Park 850 (714) 278-5376

Charitable organizations are a vital part of the social fabric, ranging from the symphony and hospital to the community clinic and animal shelters. Their services, impact and economic scope are substantial, yet the sector as a whole is little understood. The Center for Nonprofit Sector Research was established to serve the Orange County community and the field of nonprofit sector research as the repository for data about philanthropic, charitable and volunteer activity in this county. The center published the first formal study of Orange County's nonprofit sector in 1996. Ongoing activities include maintaining the Orange County nonprofit database, encouraging scholarly research of the sector, involving practitioners and funders in designing future research projects and facilitating meangful discussion of issues affecting the nonprofit sector.

# CENTER FOR SUCCESSFUL AGING

Ruby Gerontology Center 8
Phone: (714) 278-2620
Fax: (714) 278-5217

The Center for Successful Aging, through its educational, research and service activities, has as its mission the promotion of health, vitality and well being in later years. Housed in the Ruby Gerontology Center, and part of the School of Human Development and Community Service, the center uses an integrated approach to address the health concerns of an aging society.

The center has four distinct programs: Senior Fitness, Balance and Mobility, Health Promotion for Older Adults, and Outdoor Explorations. The specific goals are to (1) conduct interdisciplinary research on issues related to healthy aging; (2) provide student and in-service training to prepare healthcare practitioners, rehabilitative specialists and fitness leaders to work with older adults; (3) offer a variety of health, physical, psychological and functional assessments; (4) conduct health, fitness and rehabilitation programs; (5) collaborate and partner with community agencies and facilities to provide services to improve the quality of life in later years; and (6) serve as an advocate for affecting public policy relative to healthy aging. A multidisciplinary team of faculty throughout the university works to implement these goals in collaboration with the Director of the Center, Dr. Jessie Jones, Professor in the Division of Kinesiology and Health Promotion.

# CENTERS FOR LIFE SPAN DEVELOPMENT

The Child Study Center and the
Developmental Research Center support
instruction and research in the life-span psychological development from infancy
through adulthood. Unique opportunities are
provided to students in both research training and applied psychology. The Department
of Psychology is also closely affiliated with
the Ruby Gerontology Center, which serves
as a resource for research on topics of interest in the field of gerontology.

# Child Study Center Humanities 519 and 519A (714) 278-2110

The Child Study Center in the
Department of Psychology houses the
Neuropsychology Lab (H519A) and the
Child Study Playroom (H519), which

includes an observation room and equipment for conducting neuropsychological research. Topics of interest include learning and memory processes, memory strategy instruction, analysis of perceptual and cognitive abilities, cerebral hemispheric specialization, and brain-behavior relationships.

# Developmental Research Center Humanities 519 E (714) 278-2147

The Development Research Center in the Department of Psychology supports The Fullerton Longitudinal Study, a comprehensive and systematic investigation of children's development. Data were collected from over 100 children and their families for over 18 years.

Topics of interest include the longitudinal assessment of the relation between home environment and cognitive development; school readiness; giftedness; learning disabilities; academic intrinsic motivation; family and peer relationships; temperament; social and behavioral development, parental involvement, family structure, and hemispheric and manual laterality.

### **DECISION RESEARCH CENTER**

Humanities 532 (714) 278-2102

The Decision Research Center in the Department of Psychology, established in 1986, supports research and instructional activities of faculty and students in the study of behavioral decision-making. Research conducted in the center includes experimental and theoretical studies of (1) basic psychological laws of judgment and decision-making under conditions of risk, uncertainty and ambiguity; (2) effects of sudden changes in wealth on a person's attitude toward risk (such as the effects of winning the lottery on financial decisions); (3) effects of the judge's point of view on judgments and decisions, and (4) combination of information from sources of varied expertise and bias to form judgments and decisions.

# **FACULTY DEVELOPMENT CENTER**

Library South 281, 259, 279 (714) 278-2841

Established in 1998, the Faculty Development Center is funded by the Office of the President and is charged with promoting faculty development, vitality and enrichment. The FDC is responsible for designing and implementing a comprehensive program of support for all instructional faculty across a broad spectrum of professional activities, including but not limited to: teaching and learning, use of instructional technologies, scholarly research and creative activities, professional and service activities, and other campus-wide intellectual and community-building events.

The FDC is based on a number of guiding principles. The FDC: (1) recognizes and champions faculty in their multiple roles (e.g., as teacher, scholar, professional, community member) and acknowledges the broad range and depth of their varied accomplishments; (2) focuses on increasing faculty and thereby student learning; (3) promotes cross-departmental, school and unit interactions and fosters collaboration among faculty, administrators and staff with shared interests and professional development goals; (4) reflects an awareness of different patterns of faculty growth and development and offers comprehensive, on-going, developmental, and flexible support programs; (5) recognizes individual scholarly and creative pursuits, as well as collaborative activities and developments; (6) creates opportunities for discipline-specific, as well as cross-disciplinary shared learning and experimentation emphasizing transferability of knowledge; (7) informs faculty about the impact of external factors on the institution and fosters concomitant dialogue and adaptation; (8) reduces a sense of isolation among faculty, administrators, students and other units on campus by building community; (9) encourages and appropriately supports faculty in undertaking new roles and responsibilities and in further developing current skills (e.g., in the areas of student learning outcomes assessment and instructional technology); and (10) connects faculty growth and development to the university's vitality and seeks a balance between institutional, faculty, and student goals and needs.

Given these goals and principles, the FDC represents a collaborative effort that includes an administrative director and staff, as well as a team of faculty coordinators and liaisons, and a Senate-convened, 19-member Advisory Board with representation from faculty, administrators and students.

Specific activities of the FDC include: coordinates several funding programs directly supporting teaching and scholarly/creative activities; provides individualized and group support and training to faculty in instructional technology and use of assessment; provides support to faculty regarding special issues (e.g., community-based service learning, peer support of teaching, diversity issues, statistics and research design consultation); assists new and tenure-track faculty with an on-going orientation and retention/tenure/promotion workshop series; works with part-time faculty and lecturers; sponsors an annual program of support for chairs; arranges campus-wide conferences, seminars, workshops, and colloquia across a large variety of special topics; publishes periodic newsletters; establishes a FDC track record of scholarly publications, presentations, and successful external funding; maintains a current resource library; and sponsors community-building and campus cultural activities. For more information on specific activities, programs, and events, contact the Director, Dr. Ellen Junn, 278-4285 or the FDC's Administrative Office at 278-2841, Pollak Library, room 281.

# **FAMILY BUSINESS COUNCIL**

Langsdorf Hall 626 (714) 278-4182

The focus of the Family Business Council is on owners of family businesses. Through meetings and networking opportunities among members, the Council provides individual owners with information on the management, legal, and other professional issues associated with running a healthy business. A major aspect of the Councils activities deals with succession planning—one of the most difficult transactions faced by a business owner and one of the most important.

# **FOREIGN LANGUAGE LABORATORY**

Humanities 325 (714) 278-2153

The Department of Foreign Languages has a state-of-the-art, 24-station computer lab. Students in selected classes use the computer lab to learn grammar, idioms and vocabulary, as well as to write compositions in foreign languages. The computer lab is also connected to the Internet, where students can access a wide variety of authentic language materials contained in Web sites in the countries whose languages they are studying.

Adjacent to the computer lab is an 18-station Tandberg IS-10 audio tape lab.

Foreign language video tapes and laser discs provide students with authentic and interesting supplements to classroom instruction.

# GRAND CENTRAL ART CENTER

125 N. Broadway Santa Ana (714) 567-7234

The City of Santa Ana and Cal State
Fullerton formed an innovative alliance in
1993 to create the university's Grand Central
Art Center, located in downtown Santa Ana
in the heart of the Artists Village. The center,
which opened in spring 1999, is housed in a
block-long, 45,000 sq. foot facility. The \$6
million renovation of the historic 1924 building was a joint venture designed to bring
together art, education and the community.

The Grand Central Art Center provides a setting for graduate art majors to live, learn and work in an artists community. In addition to studio and living space for students, the art center houses classrooms, galleries and exhibition spaces, a black-box theater, plus a print-making studio, gallery gift shop, and café and reading room. The center's 83-seat theater is the new home of the Alternative Repertory Theater, a 10-year-old theater company founded by CSUF graduates. In addition, the International Artist-in-Residence Program provides the opportunity for professional artists from around the world to live and work at the center while working directly with CSUF graduate students and the community.

# INSTITUTE FOR ECONOMIC AND ENVIRONMENTAL STUDIES

Langsdorf Hall 702 (714) 278-2509

The institute issues regular economic forecasts, provides analysis-based policy advice on economic and environmental issues and studies regional economic impacts. The institute undertakes independent studies, as well as contract research into the areas of its focus with private and public entities. It seeks funding for research and training; sponsors conferences and workshops; presents studies and reports of interest to business, government, academic and general communities. Whenever possible, the institute's activities are structured to allow the participation of graduate and undergraduate students at Cal State Fullerton.

# INSTITUTE FOR MOLECULAR BIOLOGY AND NUTRITION

McCarthy Hall 282 (714) 278-3614

The Institute for Molecular Biology and Nutrition is an interdisciplinary organization comprised of faculty members from the Departments of Biological Science, and Chemistry and Biochemistry. The mission of the Institute is the exploration of ideas and problems concerning cell and molecular life science by: (1) fostering communication of scientific ideas to its membership, affiliated departments, the university, and to the community at large; (2) promoting active research on cellular and molecular problems; (3) encouraging student research in affiliation with members of the Institute; (4) development of courses related to the Institute's mission which benefit from the unique interdisciplinary approach; and (5) fostering research and education in biotechnology.

# LABORATORY OF PHONETIC RESEARCH

University Hall 417 (714) 278-3722

The Laboratory of Phonetic Research is a research and training facility administered by the Linguistics Program. It is equipped with electromechanical facilities for the study of human speech, recording equipment, and an extensive collection of tape recordings of lesser known languages and dialects. Its objectives are to provide beginning students with teaching, training and experience in phonological analysis and to provide advanced students and faculty with facilities for research in phonetics and phonology.

The laboratory also serves as the editorial home of the California Linguistic Notes.

# NORTH ORANGE COUNTY LEADERSHIP INSTITUTE

University Hall 517 (714) 278-3520

The North Orange County Leadership Institute is designed to identify and develop effective community leaders. Students explore leadership skills, discuss issues affecting the North Orange County area and learn how to become more involved in community problem-solving. The goal is to improve the quality and breadth of those in leadership positions in the region.

The institute is coordinated by the Division of Criminal Justice and Political

Science. It serves the communities of Brea, Diamond Bar, Fullerton, La Habra, Placentia and Yorba Linda and is governed by a steering committee of representatives of the school districts, cities, chambers of commerce and interested members of the business community. Approximately 20 students per year take part in the program. Instructional faculty is drawn from the university, the cities and the private sector.

# OCEAN STUDIES INSTITUTE/SOUTHERN CALIFORNIA MARINE INSTITUTE

McCarthy Hall 282 (714) 278-3614

The Ocean Studies Institute, which consists of eight California State University campuses (Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Diego, San Marcos), participates in training scientists and educating the general public by coordinating and facilitating marine educational and research activities. The OSI has recently merged with the University of Southern California and Occidental College to form the Southern California Marine Institute, which is located at 820 South Seaside Avenue, Terminal Island, CA 90731 (310) 519-3172, Fax (310) 519-1054.

Through its affiliation with the Southern California Marine Institute, the OSI provides facilities for introducing students to the marine environment and for intensive participation by students pursuing professional programs. The major facility is the R/V Yellowfin (76-foot vessel), which is used by classes and research programs in biology, geology and ocean engineering. In addition to research vessels located at Terminal Island, the facility includes a 5,000-square-foot building with laboratories, classrooms and running sea water system.

# REAL ESTATE AND LAND USE INSTITUTE

Langsdorf Hall 522 (714) 278-7125

The Real Estate and Land Use Institute is a branch of the California State University System's applied research and professional and public education center for real estate and urban land use. The mission of the institute is to promote and advance knowledge, objective research and education in the area of real estate and land use economics by: (1)

providing a neutral and consistent source of real estate research, analysis and data to the real estate community, government agencies and educators in Orange County; (2) providing neutral forum where professionals in the field address key real estate and land use issues; and (3) maintaining liaison with government agencies, private industry and associated organizations with interest in public policy affecting real estate and land use.

### **RUBY GERONTOLOGY CENTER**

Ruby Gerontology Center 8 (714) 278-7057

The Charles L. and Rachael E. Ruby
Gerontology Center serves as a forum for intellectual activity and creative scholarship in the area of gerontology. The center houses the activities of the Continuing Learning
Experience, the Gerontology Research
Institute, and is a resource center on aging for the Orange County region.

The center's goals include: promoting educational programs concerning adult development and aging, developing productive intergenerational activities in education and research, fostering cross-disciplinary research on topics related to aging and later life, providing opportunities for lifelong learning, and expanding opportunities for professional growth and development for those interested in gerontology.

### SMALL BUSINESS INSTITUTE

Langsdorf Hall 664 (949) 644-4541

The Small Business Institute has many programs designed to guide and help smaller, fast-growing businesses. One of the most important is its program in which faculty and students offer business consulting to 50 firms a year. The students are graduating seniors or MBA candidates who work under the close direction of faculty advisers. They prepare a major report that includes recommendations for improved performance. More than 800 Orange County firms have received this service. The institute selects outstanding reports to submit to the national case competitions. In 1992, 1996 and 1997, teams of MBA students—competing against approximately 250 other schools-were named national winners. Many other teams won regional honors.

# SOCIAL SCIENCE RESEARCH CENTER (SSRC)

McCarthy Hall 33 (714) 278-3185

The Social Science Research Center, under the auspices of the School of Humanities and Social Sciences, provides research services to community organizations and research support to CSUF faculty members. The center's primary goal is to assist non-profit and tax-supported agencies and organizations to answer research questions that will lead to improved service delivery and public policy.

The SSRC conducts surveys, evaluation research, needs assessments and image studies. The center also specializes in telephone survey research, conducts mailed surveys and administers face-to-face interviews. In addition, the SSRC can assist in proposal preparation and in all phases of social research, including the development of survey and evaluation instrumentation, research design, data collection, statistical analysis, and technical report writing. Through these activities, the SSRC provides applied research and training opportunities to students and CSUF faculty members.

### SPORT AND MOVEMENT INSTITUTE

Physical Education 134 (714) 278-3316

The purpose of the Sport and Movement Institute is to promote an atmosphere congenial to research, creative activity and services concerned with human movement and its related phenomena. Specifically, the organization endeavors to: (1) provide services of evaluation, consultation and advisement; (2) foster and encourage the generation and communication of ideas and information; (3) interpret and facilitate the practical application of research findings; (4) provide opportunities for individuals and community groups to participate in activities of the institute, such as clinics, workshops, seminars, etc.; (5) promote and support research and other scholarly activities on the part of the membership.

### **TUCKER WILDLIFE SANCTUARY**

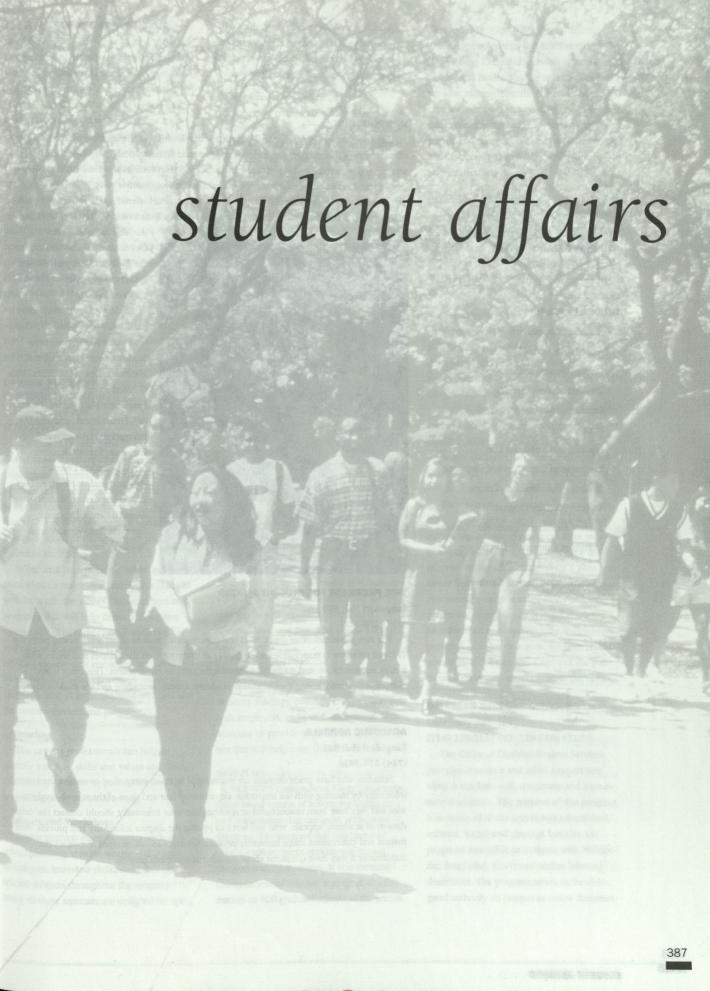
McCarthy Hall 361 (714) 649-2760 or (714) 278-3451

The Tucker Wildlife Sanctuary operates as a nonprofit California State University,
Fullerton Foundation agency. Located in
Modjeska Canyon in the Santa Ana
Mountains, the sanctuary provides for a
program of continuing educational service to
the community; a research center for biological field studies; a facility for teacher education in nature interpretation and conservation
education; and a center for training students
planning to enter into the public service field
of nature interpretation.

### TWIN STUDIES CENTER

Humanities 521J (714) 278-2568

The Twin Studies Center of the Psychology Department is designed to serve two purposes: (1) conduct research projects on twins that will contribute to knowledge concerning the rearing and educating of twins and enhance our understanding of human development; and (2) provide information to the public concerning psychological and biological aspects of twinship. Dr. Nancy L. Segal is the Director of the Twin Studies Center.



# student affairs

# STUDENT AFFAIRS OFFICE

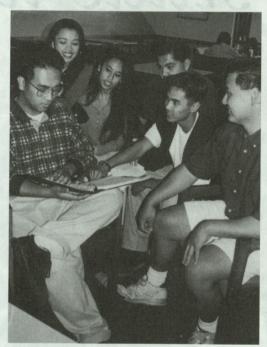
Langsdorf Hall 805 (714) 278-3221

# STUDENT AFFAIRS

Academic Appeals
Assistant Deans for Student Affairs
Career Planning and Placement Center
Disabled Student Services
Enrollment Management
Financial Aid
Housing and Residence Life
International Education and Exchange
Student Affairs Research Center
Student Diversity Program
Student Health and Counseling Center
University Outreach/Relations with
Schools and Colleges
Women's/Adult Reentry Center

### INTRODUCTION

Classroom activity is devoted to the academic development of the learner. Student Affairs offers programs that support the academic program and simultaneously provide students with services and opportunities for personal growth. Some Student Affairs programs such as housing and financial aid emphasize their service and educationally supportive roles; others, like counseling, accentuate their developmental aspects. The opportunities offered by the university's Student Affairs program vary from the traditional social activities to lectures and concerts funded through



the Associated Students.

Developmental activities include the exploration of personal and vocational life styles and leadership and training.

Student Affairs is comprised of Academic Appeals, Assistant Deans for Student Affairs, Associated Students, Career Planning and Placement, Dean of Students Office. Disabled Students Services. Enrollment Management, Financial Aid, Housing and Residence Life. International Education and Exchange, Student Academic Services, Student Diversity Program, Student Health and Counseling Center, Student Affairs Research Center, University Outreach, and Women's/Adult Re-entry Center.

# **VICE PRESIDENT FOR STUDENT AFFAIRS**

Langsdorf Hall 805 (714) 278-3221

The vice president's office coordinates and supervises all student affairs services and programs. The vice president is responsible for the quality of student life on the campus and works with faculty, administration and students to improve the campus environment. This office is also charged with administering the university's academic appeals procedure and the student disciplinary codes.

# **ACADEMIC APPEALS**

Langsdorf Hall 805 (714) 278-3836

Students who have grade disputes are encouraged to make every effort to resolve the issue informally by meeting with the instructor, department chair and dean of the school. Students who feel they have been unsuccessful at resolving the issue informally, should contact the coordinator of academic appeals, who will work to resolve the dispute informally and provide information and clarification about university policies. Students are encouraged to contact the coordinator if they have questions about the academic appeals process.

# ASSISTANT DEANS FOR STUDENT AFFAIRS

The assistant deans work in collaboration with the vice president for Student Affairs, the deans in each school and the director of the Mission Viejo Campus to deliver services that support student progress toward degree and professional objectives. In addition, the assistant deans design and coordinate programs with faculty, students, and administration that enrich the academic environment and enhance student development within the schools.

Responsibilities of the assistant deans may include counseling students with personal and academic concerns, coordinating orientation and retention programs, advising student groups, administering scholarship programs, and developing alumni and community support for the school.

Contact the school dean's office for information on how to reach your assistant dean for student affairs.

# CAREER PLANNING & PLACEMENT CENTER

Langsdorf Hall 208 (714) 278-3121

The Career Planning and Placement
Center provides career counseling and
employment services. The center has
designed many programs and services to fit
career exploration, planning and employment
needs. One of the most popular services is
listings of local, part-time jobs for Cal State
Fullerton students.

Whether a student is just beginning to think about a major or a career, or is ready to look for a job, the center has counselors and programs that will help define and achieve career goals. The center draws upon both on- and off-campus contacts and resources by working closely with employers and on task forces with faculty to plan career programs. Make the time to get acquainted with and use the center's services and programs.

# Counseling

The center's professionals can help to identify interests, skills and values and their relationship to career opportunities through counseling and vocational testing.

# Seminars and Workshops

Group sessions examine topics such as career planning, resume writing, job search techniques, interview skills, and other career-related subjects throughout the semester.

Many of these seminars are designed for spe-

cific academic areas. In addition, workshops in personal development and life skills are offered at the center. See the Calendar published every semester for current information.

# Career Resource Library

The center has an extensive collection of company, career search, occupational and labor market information to help with career research. The library includes books, pamphlets, brochures, as well as audio and video tapes.

# Part-Time Employment

The center has listings of part-time, summer and temporary employment, which are received each day from local employers. In addition, there are two Dial-a-Job hotlines; one for business, technical and general, and one for teaching positions.

# Career Employment

Employment listings and recorded job information are available to students and graduates seeking full-time career opportunities. The jobs are found in government agencies, business, industry, manufacturing, and service industries. A job search also can be conducted at the center on the Internet.

# On Campus Recruitment

Several hundred employers send recruiters to the center each fall and spring to recruit graduating seniors, graduate students and alumni. Also, there are three major career days each year.

# **Educational Placement**

The center provides complete services for candidates seeking employment in educational institutions including: counseling, file service, position listings, a published bulletin of administrative openings, and several job fairs for teachers.

# **Minority Services**

The center is aware of the career needs of minority students; counselors work closely with employers, clubs and professional organizations to provide services and opportunities that will help meet these needs.

# SIGI PLUS

SIGI PLUS (pronounced "Siggy") is a computer-based System of Interactive Guidance and Information that can assist with career decisions. The program will help examine values, explore career options and master decision-making strategies. It also contains Graduate School Selector, a program of information on 800 graduate schools in the nation.

### Career Class

Career Exploration and Life Planning
(Counseling 252) is a three-unit course
designed to facilitate career and educational
decision making. Specific objectives of the
class include increasing awareness of self, the
world of work, relationships between college
majors and occupations, and job search skills.
See the current Class Schedule for further
information.

### Alumni Career Bank

The Alumni Career Bank is composed of several hundred CSUF alumni who have volunteered to share their work experiences with students. Over 100 career areas and nearly every major and program are represented in the bank.

# Walk-In Counselor

Throughout the day a counselor is available to help define career needs and suggest appropriate services. This is designed to answer short questions, critique resumes and provide brief information.

Services of Career Planning and Placement are available without cost to currently enrolled students. Services are also available to alumni without charge for six months following graduation. After that period, alumni will be charged a nominal fee for services.

The university will furnish, upon request, current information concerning the subsequent employment of graduates from programs or courses of study which have the purpose of preparing students for a particular career field. This information includes data concerning average starting salary and the percentage of previously enrolled students who obtained employment. The information provided includes data collected from recent graduates of the campus. Copies of the published information are available at the center.

# **DISABLED STUDENT SERVICES**

University Hall 101 (714) 278-3117 (V) 278-2786 (TDD)

The Office of Disabled Student Services provides assistance and offers support services to students with temporary and permanent disabilities. The purpose of this program is to make all of the university's educational, cultural, social, and physical facilities and programs accessible to students with orthopedic, functional, perceptual and/or learning disabilities. The program serves as the delegated authority on campus to review documen-

tation and determine specific accommodations for students with disabilities. The professional and support staff are experienced in serving the particular needs of persons with disabilities.

The program works in close cooperation with other university departments in order to provide a full range of services. These services include academic accommodations (readers, note takers, tutors, interpreters for the deaf/hearing impaired, alternative testing), counseling, disabled person parking, application assistance and priority registration, academic advisement, career counseling and job-placement, housing and transportation, health services for acute illness, and advocacy.

The program also provides diagnostic assessment, counseling, advisement, advocacy and supportive services for students with functional and/or learning disabilities.

The program encourages involvement and input from students, faculty and staff in order to maintain a responsive and quality program.

Information regarding programs and services available to students with permanent and temporary disabilities may be obtained from the Office of Disabled Student Services.

# **ENROLLMENT MANAGEMENT**

University Hall 210B (714) 278-4343

The Office of Enrollment Management aids in campuswide development of student recruitment and enrolled student retention strategies by coordinating discussions, development and implementation of activities as mandated by the Executive Enrollment Management Committee. This office also develops and maintains comprehensive campus recruitment and enrollment plans.

# FINANCIAL AID University Hall 146 (714) 278-3125

The Office of Financial Aid is committed to providing eligible students with the necessary financial aid resources to ensure their academic success. The office provides financial assistance to approximately 8,292 students annually and administers over \$46 million each year through the following student financial assistance programs:

Parent Loan (PLUS) Program
Federal Perkins Loan
Federal Stafford Loan
Federal Pell Grant

Federal Supplemental Educational

Opportunity Grant
Bureau of Indian Affairs Grant
State University Grant Program
Educational Opportunity Program Grant
Federal Work Study Program
Cal Grant A
Cal Grant B

Private Scholarship Emergency Loan Fund

For further information concerning financial aid programs available at the university, see the Registration Procedures section of this catalog or call the Office of Financial Aid.

### **HOUSING AND RESIDENCE LIFE**

Cypress House 101 (714) 278-2168

Up to 396 students are accommodated in 66 Residence Hall suites on campus. Each three-bedroom, two-bath suite accommodates six residents, is air-conditioned, carpeted, and fully furnished.

The housing complex offers its residents a study lounge, computer and typing rooms, a weight room, a multipurpose room, and coin-operated washers and dryers. Barbecue grills, a picnic area, a basketball court, a sand volleyball court, piano, billiards, ping pong, a large screen television set and VCR are also available for residents.

The Housing and Residence Life Office also assists students in their search for off-campus housing by providing updated listings of local apartment complexes. Bulletin boards are available for posting cards by students seeking roommates or accommodations. Other listings highlight rooms for rent in private homes and rooms in exchange for work. Information is available on referrals for community housing agencies handling landlord/tenant law.

Residence hall space is available for summer session students and for educationally related groups sponsoring workshops and programs on campus.

Contact the campus Housing and
Residence Life Office for further information.

# INTERNATIONAL EDUCATION AND EXCHANGE

University Hall 244 (714) 278-2787

California State University, Fullerton is a community of people from many nations and cultures. The Office of International Education and Exchange is dedicated to promoting the exchange of knowledge and expe-

rience within the multicultural campus community and with the world at large. The office provides information and assistance for all international students attending CSUF and for U.S. students planning to study abroad.

### **International Students**

Over 1,200 students from nearly 80 countries study at CSUF as international students, and the staff of the Office of International Education and Exchange endeavors to provide them with the best possible academic and personal experience. The office provides visa eligibility documents, pre-arrival information, and orientation to newly admitted students. The door is always open for students to meet with an adviser to discuss academic concerns, cultural adjustment, immigration matters or just to chat.

Campus activities such as cultural events and holiday celebrations occur throughout the year. The office coordinates programs in the community, such as the Fullerton International Friendship Council, which offers home hospitality and arrival services.

# Study, Work and Travel Abroad

A year or semester overseas can provide an invaluable educational experience. Cultural awareness, language skills and an indepth knowledge of one's field from an international perspective are but a few of the many benefits of studying abroad. A well planned program offers career advantages with the increasingly multinational and multicultural organizations and communities of Southern California.

The California State University
International Programs is an academic year program with centers in 17 countries.
International Programs participants remain enrolled at CSUF, earn residential credit, and pay an International Programs participant fee and home campus fees. All personal expenses are the student's responsibility.

CSUF has established campus-based direct exchange programs with universities in China, France, Germany, Japan and Mexico. Application and admission requirements vary somewhat by country. No overseas tuition is charged; students pay regular CSUF campus fees, plus international transportation, living, and related expenses. Semester programs are available.

Detailed information on both the CSU International Programs and exchange programs may be found in the "International Programs" section of this catalog.

Information on the International
Program, as well as a general library on
study, work and travel abroad are available in
the International Education Office.

# Intercultural Development Center

The Intercultural Development Center offers educational support programs and services for foreign-born students, particularly recent immigrants and refugees from Southeast Asia. Students are offered programs such as employment skills workshops, peer support groups, and traditional cultural celebrations. The center also provides information on service-learning and volunteer opportunities with community agencies serving recent immigrant populations in Orange County.

The Intercultural Development Center builds cross-cultural awareness in the campus community by serving as a resource center with published materials and presentations on diverse cultures. The center is well-equipped to assist immigrant and refugee students with academic and personal problems.

# STUDENT AFFAIRS RESEARCH CENTER

Langsdorf Hall 206 (714) 278-2591

The Student Affairs Research Center provides leadership in the performance of quality research on students. The center is a resource for information about students and performs and supports secondary and primary research of all forms. Research projects include survey research, such as the annual campus climate assessment; qualitative research including focus groups and secondary data analysis, such as records review and database analyses. The center provides consultation to all researchers on issues concerning survey research, instrument selection and project development.

# STUDENT DIVERSITY PROGRAM

University Hall 183 (714) 278-5897

The Student Diversity Program addresses the low retention and graduation rates of student athletes and other at-risk students by improving their use of campus academic support services and by enhancing their academic development and achievement through additional support services tailored to meet their individual needs. The Student Diversity Program supports a network program for the

at-risk student population. The SDP first provides guidance and retention services to diverse student populations by developing and implementing action plans and programs to address academic, social and cultural needs. Second, the SDP maintains a complex early assessment and reporting system to enhance student academic and social interaction.

# STUDENT HEALTH AND COUNSELING CENTER

Student Health Center (714) 278-2800

The Health Center is staffed by physicians, nurse practitioners, registered nurses, laboratory and radiology technologists, a pharmacist, and a physical therapist. Most of the providers are primary care clinicians. The staff also includes specialists in the following fields: gynecology, orthopedics, dermatology, podiatry, and family planning counseling. The center has its own laboratory and pharmacy which fills prescriptions from the center's providers. A student planning to go overseas may obtain inoculations at the Health Center.

All medical records are confidential; no information will be released without the patient's written permission, except in the rare case of a court subpoena.

The basic medical services of the Student Health Center are supported jointly by the state budget and a student mandatory health fee. Certain augmented services are available at a low additional fee. An optional Titan Health Card covering unlimited use of augmented services at a reduced fee may be purchased at the Health Center reception desk.

To schedule an appointment, call (714) 278-2813.

# Counseling and Psychological Services Langsdorf Hall 205

(714) 278-3040

The Counseling and Psychological
Services staff is dedicated to providing high
quality and effective psychological counseling
and brief psychotherapy to registered students who are facing problems in their lives,
their studies and their relationships. The ultimate objective of CAPS is to contribute in a
significant way to student learning and to the
development of CSUF students as effective,
mature and responsible adults.

CAPS staff members are trained mental health professionals who are: licensed psychologists and marriage, family, and child therapists, doctoral-level psychological counselors and supervised graduate interns. Any student who is currently enrolled at CSUF is eligible for counseling services; couples may also be seen as long as one member of the couple is a student at CSUF.

# UNIVERSITY OUTREACH/RELATIONS WITH SCHOOLS AND COLLEGES

University Hall 215 (714) 278-2086

The Office of University Outreach
Services/Relations with Schools and Colleges
develops and coordinates a comprehensive
program of outreach services and activities to
make the university more visible, attractive
and accessible to all potential students. The
primary goal of the office is to increase the
number of individuals who apply for admission to the university.

To accomplish this goal, the outreach staff makes presentations to high school and community college students, parents and school counselors regarding the university's admissions procedures, academic programs, student life opportunities, and support services. Outreach staff also provides assistance in completing admissions and financial aid applications.

Outreach also offers programs throughout the wider community. Community outreach efforts utilize alumni and alumnae, faculty and staff, and current students to increase the university's involvement in surrounding areas. Some of the programs are listed below:

- The Early Academic Outreach Program
- Transfer Center Program
- Pre-Collegiate Academic Assistance Program
- University Student Academic
   Developmental Program for K-12 Schools

# Student Outreach Services University Hall 234 (714) 278-2086

Student Outreach Services provides outreach and educational enhancement services to low-income high school students. It is designed to strengthen the college preparation of students who will soon be enrolling at Cal State Fullerton. High schools especially targeted are those with high enrollments of students from economically, educationally, physically or environmentally disadvantaged backgrounds.

The program makes presentations to middle and high school students and community college students regarding admission policies, financial aid and academic opportunities. Educational enhancements include: basic skills courses, tutorial sessions, campus tours, a mentoring program and college awareness workshops.

# Summer Bridge University Hall 231 (714) 278-2784

This four-week residential program during the summer allows new students to become accustomed to living and working on campus. Instructional support is provided in English and reading. In addition, specialized workshops are offered to help improve listening and communication skills. The program provides a good opportunity for new students to establish a strong network of friends, faculty and staff whom the student can rely on for help during the school year.

# **TRIO Programs**

The TRIO programs, funded by the Department of Education, were instituted to assist disadvantaged students in reaching their educational goals. These three programs target low income and first-generation secondary students, college students and adults, providing them with educational services to ensure that they graduate and then continue their education at the next level. The objectives of these programs are to increase educational opportunity, raise academic performance, improve retention and motivation for student success. Two of the TRIO programs are offered on campus.

Educational Talent Search University Hall 215 (714) 278-5304

Educational Talent Search identifies middle and high school students with potential for postsecondary education and encourages them to graduate so as to continue their education at the college level. The program also provides services for adults who wish to obtain a high school degree.

Upward Bound
University Hall 215
(714) 278-3254

Upward Bound is a year-round college preparatory program for Santa Ana Unified School District The program offers workshops, advisement and career planning on a weekly or monthly basis. Upward Bound also sponsors a residential summer program providing students with intensive study in math, science, and writing, and trips to local sites of educational interest.

# WOMEN'S/ADULT REENTRY CENTER University Hall 205 (714) 278-3928

The Women's Center's primary objective is to foster a greater awareness of women's issues. Its goal is to promote gender equity through improved communication between women and men. It is open to all interested students. The center's hours are from 8 a.m. to 5 p.m. Monday through Friday. Evening appointments are always available.

The Women's Center is a place for all students — women and men. It's a place to get help with any problem you may have; a place to study, relax, and make new friends. In short, an excellent center for students to receive support, information and resources to help them explore the many options available to them

Programs and services include individual counseling, speakers, films, skill-building workshops, developmental groups, resource information, and referrals. Cultural diversity and what that means for women of color is of special concern to the Women's Center. African-American women, Asian women, and Latinas will find groups and books specific to the concerns of each of these populations.

The Women's Center is closely involved with the minor in Women's Studies. The center houses a Women's Studies Library of over 800 books and files with excellent research materials. A listing of film and tape titles round out the collection. The center also gathers and maintains information on local women's events, news and networks.

The Adult Reentry Center (ARC) serves adults who, after a break in their education, are considering beginning or continuing their college education. The center provides support and guidance for currently enrolled reentry students and others whose needs differ from those of the traditional university student.

ARC offers a variety of programs that include support counseling, workshops, support groups, and referrals to staff and faculty. The center's counselors and programs can help students and prospective students to clarify their goals and determine if a uni-

versity education is the appropriate method for attaining those goals. The center also provides information and assistance with university application and registration procedures, as well as personal, academic and career counseling. Special programs, groups, workshops, films, and discussions wh+ich focus on the special needs of reentry students are presented each semester. Evening hours are always available.

# student academic The mission of Student Academic Services is to create an environment where all students

# INTRODUCTION

have the opportunity to succeed. The services and activities the department administers to achieve its mission are all centered around student retention and graduation. SAS is committed to serving a diverse population and providing students with a rich educational experience.

The department coordinates the services of a number of student programs. These programs give particular attention to the educational needs of low income and disadvantaged college stu-

dents to ensure that they have services available to them to successfully complete their college education. The following programs are administered by SAS.

# **EDUCATIONAL OPPORTUNITY PROGRAM**

University Hall 231 (714) 278-2784

The Educational Opportunity Program (EOP) is charged with improving the access and retention of low-income and educationally-disadvantaged students. EOP students have the potential to perform satisfactorily at CSUF, but may be unable to realize this potential due to educational or economic barriers.

EOP provides admission and financial aid information to help students complete the admissions process. In addition, EOP stu-

dents can make use of academic services such as tutoring, orientation sessions, basic skills workshops and counseling.



University Hall 125 (714) 278-7236

Intensive Learning Experience (ILE) serves students who score in the lowest quartile on the English Proficiency Test and/or the Entry Level Mathematics Examination. ILE strives to increase the retention of students by ensuring their timely enrollment in appropriate developmental math and English courses. The program also makes referrals to other services in Student Academic Services/University Outreach, such as counseling and skills workshops.

# **LEARNING CENTER**

University Hall 123 (714) 278-3488

The Learning Center supports the following university goals: 1) establish an environment where learning and the creation of knowledge are central to everything we do; 2) assess student learning collegially, and continually use the evidence to improve programs; 3) integrate advances in information technologies into learning environments; 4) create opportunities in and out of the classroom for collaborative activities for students, faculty and staff; 5) ensure that students of



# STUDENT ACADEMIC SERVICES OFFICE

University Hall 138 (714) 278-2484

### ACADEMIC SERVICES

Educational Opportunity Program

Intensive Learning Experience

Learning Center

MESA Engineering Program (MEP)

Student Retention Services

Testing Services

varying age, ethnicity, culture, academic experience and economic circumstances are well served; 6) facilitate a timely graduation through class availability and effective retention measures. To accomplish these goals, the Learning Center provides a wide variety of services to students; promotes collaborative efforts among students, faculty and staff; and supports the academic enterprise, ensuring that every student will have the opportunity to succeed. In addition, the Center provides a safe, user-friendly interactive environment that encourages the creation of many communities of learners.

In the Center, collaborative learning groups provide support for general education and major classes, which involves small-group study led by a student who attends the class with the group and works closely with the professor. Study skills, such as time management, test taking strategies, and note taking are included as part of the group's activities.

### **MESA ENGINEERING PROGRAM (MEP)**

Computer Science 201 (714) 278-3879

The MESA Engineering Program (MEP) is an academic support program designed to recruit, retain and graduate students. MESA serves educationally-disadvantaged students and emphasizes participation by students from groups with low eligibility rates for four-year colleges.

MEP offers students assistance in the following areas: admission and matriculation; orientation courses; study center; tutoring; academic counseling, student organizations; scholarships and incentive grants.

# STUDENT RETENTION SERVICES

University Hall 143 (714) 278-2288

Student Retention Services provides a variety of educational support activities to students. Services include: academic advising, personal counseling referrals, basic skills workshops, individual and/or small group tutoring, career exploration workshops, and orientation courses.

An essential mission of the office is to increase retention. All retention services are delivered to first- and second-year EOP students and to other students, such as those on academic probation or in jeopardy of disqualification.

The Learning Center is also available to help students improve their basic reading,

writing, mathematics and critical thinking skills. Instructional support for general education courses is also offered.

# STUDENT SUPPORT SERVICES

University Hall 142 (714) 278-5210

The Student Support Services program offers numerous services for college students to improve their academic performance. Through services such as instructional support, tutoring and mentoring, the program gives students the educational tools necessary to be a success at Cal State Fullerton.

# **TESTING SERVICES**

University Hall 229 (714) 278-3838

The Testing Services office provides a variety of testing opportunities to the university. The office supports the counseling services available through the Career Planning and Placement Center by administering a variety of vocational tests designed to help students gain a better understanding of themselves and of their goals and interests. These tests are administered on an individual basis in response to counselor referrals.

National group testing programs related to undergraduate and graduate school admissions and teacher certification are also coordinated by the center. Information on the following is available in the center:

American College Test (ACT) Scholastic Assessment Tests (SAT) Graduate Record Examination (GRE) Graduate Management Admission Test (GMAT)

Law School Admission Test (LSAT)
Medical College Admission Test (MCAT)
Professional Assessments for Beginning
Teachers (PRAXIS)

California Basic Educational Skills Test (CBEST)

Test of English as a Foreign Language (TOEFL)

The Center also administers other group tests related to CSUF degree requirements. Information on these tests is available in the center:

English Placement Test (EPT)
Entry Level Mathematics (ELM)
Examination in Writing Proficiency (EWP)
Accounting Qualifying Examination
(AQE)

Mathematics Qualifying Examination (MQE)

# student life

#### INTRODUCTION

Student Life provides educational opportunities outside of the classroom at California State University, Fullerton. Students can take full advantage of the many lectures, programs and seminars offered as part of a well-developed co-curriculum on campus. Students not only attend events but participate in the planning and implementation of a full slate of activities held throughout the year.

#### **DEAN OF STUDENTS OFFICE**

The students, staff, and programs that comprise the Dean of Students Office offer developmental experiences for students desiring to learn and practice leadership skills.

Society looks



to universities to provide the next generation of leaders, but frequently little is done to give students preparation for this role. Here, in the Dean of Students Office, opportunities range from a more structured learning environment, such as the Student Leadership Institute, to participating as an officer in a student club or volunteering in surrounding communities with the Community-based Learning and Service Center. Retreats and workshops are held to help students acquire the expertise they will need now and in the future.

The Dean of Students Office provides information and assistance in registering a club or organization. In addition, one can get information about the 180 student clubs and organizations currently registered at CSUF. The Dean of Students Office is responsible for scheduling club meeting space in all campus buildings (except the Titan Student Union), as well as for scheduling reservation space for outdoor activities. The professional staff is available to help plan, implement and evaluate almost any type of program or project. The staff can also assist in budget development, publicity, fund-raisers, dances and conferences. The professional staff conducts workshops throughout the semester and covers such topics as successful event program planning and group dynamics. Furthermore, the Dean of Students Office staff advises all student groups wishing to sponsor campus-wide cultural programs.

#### Student Leadership Institute Titan Student Union 235 (714) 278-5999

The Student Leadership Institute is a nationally recognized program that offers non-credit workshops for CSUF students on leadership development topics. The program is for students who are interested in improving their leadership skills. The Leadership Institute offers four certificate programs: University Leadership, Peer Education, E.M.B.R.A.C.E. (Educating Myself for Better Racial Awareness and Cultural Enrichment) and Leadership for Public Service.

#### **DEAN OF STUDENTS OFFICE**

Titan Student Union 235 (714) 278-3211

#### ASSOCIATED STUDENTS OFFICE

Titan Student Union 207 (714) 278-3295

#### Community-based Learning and Service Center (CLASC) Titan Student Union 247 (714) 278-7622

The Community-based Learning and Service Center (CLASC, pronounced "classic") connects students with volunteer opportunities. CLASC provides quality service to the surrounding community while broadening the knowledge and experience of the servers as responsible and active members in a democratic society. CLASC provides a wide range of service-learning projects that are student-run and dedicated to issues such as tutoring and mentoring, college prep and hunger and homelessness. Additionally, students can use CLASC to identify in-service learning courses. Community service programs provide a variety of experiences, including volunteer work, internships, academic credit projects, and some compensated experiences. CLASC will help place students in both on-campus and off-campus agencies.

#### Student Information and Referral Center

The Student Information and Referral Center (SIRC) is a service in joint collaboration with the Dean of Students Office and the Academic Advisement Center. SIRC is a place where new and continuing students can get questions answered and learn about services and programs on campus designed for student success at Cal State Fullerton.

SIRC provides general campus information, campus involvement information, on-campus student organization information and highlights evening programs and services. SIRC works in collaboration with the Academic Advisement Center on campus to provide students with academic advisement assistance and general education advisement. In addition, SIRC is the home of New Student Programs, which assists new students in making a successful transition to the university. The Center for Careers in Teaching is also located in SIRC and provides students with information and assistance about pursuing a career in teaching.

SIRC is open Monday through Thursday 8 a.m. to 7:30 p.m. and Fridays 8 a.m. to 5 p.m.

#### **New Student Orientation**

New Student Orientation provides new freshman, transfer students and their family members with an introduction to the opportunities for learning at CSUF both in and out of the classroom. A strong emphasis is placed on general education and getting registered

for classes in the first semester. The programs also provide a place to meet people, get an overview of the campus and discover the traditions of CSUE.

#### Titan Welcome Week

This is an opportunity to join with others in the CSUF community to welcome new students and kick off the new academic year. Titan Welcome Week is held during the first weeks of the fall and spring semesters. Events and programs offered during Titan Welcome Week range from academic open houses to the ever popular ClubFest.

#### New Student Information Center Langsdorf Hall 112 (714) 278-3120

The New Student Information Center offers new and continuing students general information about campus events and services, directions and campus hours. Students and visitors are able to pick up applications for admissions, information about on-and-off-campus housing, student handbooks and general information about the various services on campus.

#### **Campus Tours**

Call the New Student Information Center at (714) 278-3120 to schedule a tour of the campus. Tours are offered daily: Monday, Wednesday and Friday at 12:00 noon and Tuesday, Thursday and Friday at 3:00 p.m. Group tours for 15 or more people should be scheduled a minimum of two weeks in advance of desired tour date and time. Tours can last 60 to 90 minutes.

#### Student Organization Area Titan Student Union (714) 278-7622

Students who want to meet and get to know students who are interested in similar types of co-curricular activities can join one of the 180 active student clubs and organizations on campus. The Dean of Students Office provides information about club meeting times, dates and locations. Categories of clubs include academic, honor, cultural, professional, religious and recreational.

Academic and professional organizations are either closely affiliated with academic areas at Cal State Fullerton or have national professional recognition. These groups offer students a chance to identify with faculty and community members who have similar career interests.

Greek letter fraternities and sororities with national affiliations also exist at Cal State Fullerton. With a choice of 10 IFC fraternities and six Panhellenic sororities, students can usually find a group to join.

Additionally, there are Asian, Latino and Black fraternities and sororities in which students can also participate. Rush information is available at the Dean of Students Office.

#### Judicial Affairs Titan Student Union 235 (714) 278-3221

Students are expected to conduct themselves as mature members of the campus community. The Judicial Affairs Coordinator conducts educational workshops that promote and educate students about campus expectations. This office is responsible for coordination of the established judicial procedures if accepted university standards have been compromised and is also a contact point for academic appeals. Additional information on Academic Appeals can be found in the Student Affairs section of this catalog.

#### **ASSOCIATED STUDENTS**

# Titan Student Union 207 (714) 278-3295

Associated Students, Inc. is a campus involvement connection at California State University, Fullerton. AS offers a variety of learning experiences through its government, programs and services. Many campus special events are the product of student efforts to bring students new educational opportunities, teach them about the campus, and provide a friendly, social atmosphere at CSUF.

AS is a non-profit corporation supported by the activity fee students pay through registration each semester. By paying this fee, students are automatically a member of Associated Students, Inc. The purpose of the corporation is to provide academic and cocurricular programs and services for students. When students are involved in AS, they are a part of an energetic, productive group learning valuable organization and communication skills that can augment their personal and professional growth.

#### AS Government

The AS government controls the actions of the corporation; it is a powerful, active organization that has a need for students with all types of talents and skills. To apply for a position or find out more about student government, visit the AS government office in the Titan Student Union.

#### AS President and Executive Vice President

The AS president and executive vice president are chosen through student elections each spring and manage the corporation, its employees and volunteers. These officers represent students' needs and interests to CSUF's faculty and administration, and to the surrounding community. They also participate in several committees. Along with the executive staff, the president and executive vice president submit recommendations to the AS Board of Directors on the corporation's annual budget of more than \$4.3 million.

#### AS Executive Staff

The executive staff works with the president and executive vice president to direct the programs and operation of the corporation. All executive staff members are appointed by the AS president. Students may apply for these positions in the AS government office.

The AS vice president for finance coordinates the budget process. The vice president for administration recruits students for presidential appointments and implements special projects. The director of statewide affairs is the CSUF representative to the California State Student Association. This statewide organization influences decisions about education, fee schedules and related topics. The public relations director is responsible for marketing the corporation and communicating with the campus community. The director of advancement is responsible for the AS scholarship program. Student volunteers are assigned specific duties according to the needs of the corporation.

#### AS Board of Directors

The AS Board of Directors is composed of two directors from each school who are elected to serve one-year terms. The AS president, executive vice president, executive staff members, executive director, one faculty council representative, and one appointee of the university president also sit on the board. Directors also sit on various board subcommittees and other university committees.

These directors represent the student body and work with the executive staff to implement programs that fulfill students' academic and co-curricular needs. They deal with issues regarding the business and affairs of the corporation, including approving budgets and appointments, authorizing business contracts, and issuing policy statements for administrative purposes.

The weekly meetings of the AS board are held in the Legislative Chambers in the Titan Student Union. All students are welcome to attend. Board seats are open to all qualifying students. Election applications are available at the midpoint of each semester in the AS government office in the Titan Student Union.

#### AS Productions Titan Student Union 268 (714) 278-3501

Entertainment possibilities are endless with Associated Students Productions (ASP) at CSUF. ASP consists of six committees composed of student volunteers whose common interest is to keep the campus alive with quality entertainment and educational presentations.

ASP program directors or assistant directors are appointed by the AS Board of Directors. Any student can volunteer to serve on a committee. Students involved with ASP have the opportunity to plan and implement programs, manage budgets, and improve their leadership skills. Students can join an AS Productions committee anytime during the year by contacting the ASP office.

#### Association for Intercultural Awareness Titan Student Union 261 (714) 278-2914

The Association for Intercultural Awareness is composed of the student cultural clubs and organizations at CSUF. It provides funds to student groups that represent ethnic programs and for educational programs that are culturally based. For more information about the AICA, contact the Office of Student Life.

#### Camp Titan Titan Student Union 259 (714) 278-3036

CSUF students devote one week of their time each June to be friends and counselors to over 120 children attending Camp Titan, which is accredited by the American Camp Association. The children range in age from 5 to 13 years and are selected on a referral basis from community service agencies and attend camp at no cost.

Students who are interested in a week of hiking, crafts, sitting around a campfire, swimming, and spending time with children, can obtain further information about Camp Titan from the Associated Students Office.

#### Departmental Association Council Titan Student Union 256 (714) 278-3300

The Departmental Association Council (DAC) is composed of student delegates who represent all of the academic student organizations within each department.

DAC provides funding for programs originated by member groups. Student departmental organizations can use DAC funds to provide speakers, films and presentations that enhance the classroom experience.

Individual students can receive funds for use in conducting research. All CSUF students are eligible to apply for such funds.

DAC also provides a forum for discussion of student ideas and concerns. All students are welcome to attend council meetings.

For more information on how to get involved in DAC, contact the University Activities Denter

#### Children's Center Buildings 200 and 400 (714) 278-2961

The Children's Center is sponsored and funded by Associated Students, Inc. For a nominal fee, children aged 3 months through 5 years whose parents are CSUF students, staff or faculty can benefit from the services of the center. Trained preschool teachers offer a comprehensive curriculum that covers learning skills in several areas of education.

#### Legal Information and Referral Annex Office on Campus, Titan Student Union 255 (714) 278-5757 or (714) 870-5757

Associated Students contracts with the College Legal Clinic, a Fullerton-based corporation, to provide information on legal procedures and initial consultation on all types of legal matters. If desired, students are referred to Orange County attorneys for reduced fee services. A 24-hour hot line is maintained by the College Legal Clinic.

#### Titan Student Union

The Titan Student Union is located on the northwest corner of campus and provides areas for club and organizational meetings, recreation, relaxation, food service and study. Each semester a portion of student fees helps support the services available.

#### Titan Student Union Governing Board

The Titan Student Union Governing Board establishes operating policies for the Titan Student Union. Board members include students, faculty, an alumni representative, administrative representatives and an appointee of the university president.

Additionally, the board also evaluates the programs and services of the Titan Student Union, as well as space allocation and budgetary matters.

Board members are involved in several committees. Among them are the Food Services Committee, Policy Committee, Interior Design Committee, Space Allocation Committee, Art Acquisition Committee, and the Future Directions Committee. Any student may apply for a board position.

#### Main Information Desk

The information and service desk of the Titan Student Union has the answer to most questions. It's the place to purchase OCTA bus passes and ticket books; tickets for some campus events and local movie theaters; receive vending machine refunds; retrieve lost belongings from "lost and found"; and obtain general campus information.

#### University Conference Center

This office provides meeting/event facilities and related services in the Titan Student Union for student groups, faculty/staff groups, and for the surrounding community. While specific room rental rates vary, some facilities are frequently available at no charge to CSUF-chartered student organizations.

#### Amphitheatre

The Becker Amphitheatre was built by Associated Students, Inc. in conjunction with the Titan Student Union. The amphitheatre, located just southeast of the Titan Student Union, is used for noontime concerts, theatre productions and other live entertainment.

#### Center Gallery

The Center Gallery offers displays of student, graduate and faculty artwork. Exhibits usually feature the work of a single artist and are shown for three weeks. All exhibits are chosen by a student art gallery coordinator.

#### Graphic Services and Photo Lab

Titan Student Union Graphic Services develops quality flyers, brochures, logos, letterheads and posters. Services include illustration, layout design, paste up, and desktop publishing. This area also offers a complete black and white photo lab. All services are provided at very reasonable prices.

#### Mainframe Computer Lounge

Aside from the study lounges, this is one of the most popular services offered by the Titan Student Union. Here, students can use

personal computers to give their assignments that professional look.

The area also features soft chairs, bright lights for reading, and a counter full of magazines. The Music Listening Room has a wide selection of the latest releases of rock, jazz, classical and country-western music. Headsets are available for personal listening.

Round Table Pizza Pub, Food Court, Garden

The Pub's congenial atmosphere offers a place to relax and sells soft drinks, beer and wine, and Round Table Pizza. Major sporting events are shown on the Pub's big-screen television and music is played continuously. The Pub is located on the Titan Student Union's lower level.

The Food Court is located on the main level of the Titan Student Union and features Togos Sandwiches, the Green Burrito, and the Busy Bee Asian Food.

The Garden Cafe is located on the lower plaza of the Titan Student Union and offers a unique cafe menu in a pleasant outdoor garden setting.

#### Union Program Board

The Union Program Board is a committee of the Titan Student Union Governing Board. The committee's purpose is to develop and present social, cultural and educational programs of interest to the university community.

#### Games and Recreation

It's mostly fun n' games on the lower level of the Titan Student Union. The recreation area offers a place for diversions that include a lounge with a large screen television, a billiard room, video and pinball games, locker rentals, small table games and the Titan Bowl. The CSUF community is invited to participate in the various bowling leagues and tournaments sponsored each semester.

#### Titan Theatre and Pavilion

The Titan Theatre and Pavilion are available to clubs and organizations for meetings, conference lectures, and other presentations. It can be reserved through the University Conference Center office.

#### AS Recreation Sports Physical Education 121 (714) 278-3978

Believing that recreation and leisure pursuits are an integral part of one's total educational experience and achievement, the AS Recreation Sports strives to provide all students with an opportunity to use their leisure

time wisely in order to attain the highest degree of physical reward and mental relaxation

The benefits of the recreation program are numerous, and it has been proven time and again, that those who maintain good health and physical fitness, perform better in all aspects of life. These programs are free to all students.

#### Informal Leisure Recreation

A program of unstructured recreational activities are available to all CSUF students. By presenting a validated photo ID card, students can participate in the supervised use of numerous facilities including the racquetball and tennis courts, swimming complex, gymnasium and fitness lab. These facilities are open seven days a week.

#### Intramural Sports

The Intramural Sports Program is a student-funded recreational-based program of competitive leagues and tournaments. The program is accessible to all CSUF students, faculty and staff. Students have an active participative voice in all operations of the program through student assistants, as well as the intramural representatives who sit on the Intramural Sports Council. Activities such as flag football, ultimate frisbee, bowling, basketball, softball, and volleyball are scheduled at various times and days to accommodate individual schedules.

#### Sports Clubs

The Sports Clubs program at Cal State Fullerton is designed for individuals and organizations with similar athletic and/or recreational interests who wish to compete against other teams outside the university. They meet on a regular basis to teach and develop skills, and to promote the sport or activity. While competing in leagues and tournaments with other colleges, universities and local clubs, they are representatives of California State University, Fullerton. All competitions are on a non-varsity (Non-NCAA) level. Typical clubs include rugby, cycling, bowling, skiing and surfing.

#### Student Family Memberships

Current CSUF students who are married may purchase a recreation membership for their spouse and children (21 years and younger, living at home). Unmarried students living at home may purchase a recreation membership for their parents and siblings (21 years and younger, living at home).

# interesting the state University, Fullerton has grown alongside the

#### **CONFERENCE MEMBERSHIPS**

National Collegiate Athletic Association (NCAA) Division I Big West Conference

The rise of academic prestige at California State University, Fullerton has grown alongside the development of one of the nation's impressive young athletics departments. The intercollegiate athletics department provides student-athletes the opportunity to compete against the country's finest competition as well as providing a top-notch education. In an effort to ensure academic

development, the university provides counseling systems designed specifically for studentathletes. Those services include academic advisement, guidance counseling and daily study halls.

CSUF has also made a commitment to provide facilities that enable fans and athletes alike to enjoy first-rate competition. The long-awaited Sports Complex gives Fullerton fans a much-needed home multipurpose and soccer stadium. The complex provides a 10,000-seat stadium plus upgraded baseball facilities that seat more than 2.000. Also included are two lit softball diamonds and a lighted track that enable fans to enjoy the university's many night events. Titan Gymnasium already enjoys tremendous popularity among the local community with more than



4,000 fans attending home basketball (men's and women's), women's gymnastics and women's volley-ball events. An outdoor swimming complex, racquetball courts, weight-training facilities, a high-level gymnastics practice facility, plus facilities for wrestling and fencing make the Fullerton athletic complex a step above.

#### **MEN'S INTERCOLLEGIATE ATHLETICS**

#### Baseball

Few NCAA Division I baseball programs have enjoyed the degree of success that the Titans have had over the past two decades. During that time, the Titans have won 16 conference championships, nine regional championships and three national championships. Major League stars Tim Wallach (Los Angeles Dodgers), Phil Nevin (Anaheim Angels) and Brent Mayne (San Francisco Giants) have developed at Fullerton. In total, there have been 23 CSUF baseball products competing in the major leagues. Additionally, the Titans boasted two 1996 Olympic team members, Mark Kotsay (Florida Marlins) and Brian Lloyd. Year in and year out, the Titans compete against the nation's finest programs and always come out winners.

#### Basketball

The development of Fullerton basketball has been one of college sports' finest Cinderella stories. Often in contention for the Big West Championship, the program has produced more than half a dozen professional prospects, including Cedric Ceballos, formerly of the Los Angeles

#### DEPARTMENT OFFICE:

Physical Education 158 (714) 278-2677

#### **DIRECTOR OF ATHLETICS:**

John Easterbrook

# SENIOR ASSOCIATE DIRECTOR OF ATHLETICS:

Dr. Maryalyce Jeremiah

# ASSISTANT DIRECTOR OF ATHLETICS, ACADEMICS:

Christine McCarthy

#### ASSOCIATE DIRECTOR OF ATHLETICS, MEDIA RELATIONS:

Mel Franks

#### COACHES

#### Baseball

George Horton

#### Basketball

Bob Hawking (Men)
Denise Curry (Women)

#### Cross Country/Track (Men/Women)

John Elders

#### Fencing (Men/Women)

Heizaburo Okawa

#### Gymnastics

Lynn Rogers (Women)

#### Soccer (Men/Women)

Al Mistri

#### Softball

Iudi Garman

#### Tennis (Women)

Bill Reynolds

#### Volleyba

Mary Ellen Murchison

#### Wrestling

Ardeshir Asgari

Lakers, and made a pair of NIT appearances, along with a trip to the NCAA Final Eight in 1978. 1984 Olympic Team point guard Leon Wood is one of many fine athletes who has helped develop the Titans into a program that will continue to grow. The university's commitment to basketball ensures that success in the years to come.

#### **Cross Country**

Men's cross country is making positive strides. The program competes in the very competitive Big West Conference which is perennially in the spotlight for national attention. The campus and outlying community offer a beautiful setting which enables the sport to set new standards among local and national universities.

#### Soccer

Soccer is another of Fullerton's many sports where strong coaching has turned the program into a West Coast power. Al Mistri developed one of Southern California's finest soccer programs at Damien High School in LaVerne before taking over at Fullerton. Through hard work and support from a summer soccer camp, Coach Mistri has turned Titan soccer into one of the NCAA's most competitive men's squads. Fullerton shared the conference championship in 1986 and 1992 and placed third in the nation in 1993 and fifth in 1994. The team was ranked as high as No. 2 nationally in 1996. With the help of the new stadium, Fullerton expects to challenge for the crown every season.

#### Fencing

One of the West Coast's few Division I fencing programs gives prospective athletes a chance to train in a traditional, unique sport. The team has enjoyed a great deal of success over the past few years competing against local universities in sabre, foil and epee.

#### Track

Reinstated for the 1989 season, a spring track program provides a complement to the fall cross country schedule and should attract greater numbers of athletes. A new running track is part of the new Sports Complex and has accelerated the growth of the program that was one of the mainstays of Fullerton's athletics department in the early 1970s.

#### Wrestling

Another sport that few West Coast schools support is prospering in Orange County as CSUF proves that hard work and strong coaching can bring success. Prospective athletes will find an atmosphere that is unparalleled among California universities. Topnotch competition and an All-American environment are two reasons why Fullerton wrestling is so successful. The Titans compete in the rugged Pac-10 conference. Joey Coughren placed eighth at 141 pounds in the 1998 NCAA championships.

# WOMEN'S INTERCOLLEGIATE ATHLETICS

#### Basketball

The rise in popularity of women's basket-ball has its foundations tied to the success of Fullerton women's basketball teams. Under former Coach Billie Moore, the Titans won one of the very first national championships given out in the sport and recent teams have continued to be competitive on a regional basis. Two of women's basketball's greatest names have risen from Fullerton including 1976 Olympian Nancy Dunkle and 1991 All-American Genia Miller, now Genia Miller Rycraw of the Los Angeles Sparks.

#### Fencing

One of the West Coast's few Division I fencing programs gives prospective athletes a chance to train in a traditional, unique sport. The team has enjoyed a great deal of success over the past few years competing against local universities.

#### **Gymnastics**

The consistent efforts of Lynn Rogers' women's gymnastics squad have made them a top-20 national power for virtually all of 23 seasons. No other school in the nation has produced more All-Americans or finished in the top three for more years than the Titans. Potential scholar-athletes receive an opportunity to compete and win year-round.

#### Soccer

This popular and growing sport for women was added in 1993, and Coach Al Mistri has goals for success matching the men's squad. The Titans have made great strides since their first season and already play the best programs in California. In a few short seasons, the program has already established a winning overall record. All-America candidate Dolores Browning finished the 1995 season as the nation's No. 3 scorer.

#### Softball

The sport of softball continues to set new standards of excellence on the local and national level. Always a contender for the NCAA title, the Titans captured their first championship in 1986. Coach Judi Garman's teaching has brought the university countless All-Americans including former Broderick Award winners Kathy Van Wyk, Susan Lefebvre and Connie Clark. A two-diamond, on-campus facility enables an even greater audience to enjoy one of the nation's most successful teams face off against other national powers.

#### **Cross Country**

The rebirth of a spring track schedule has been a boon to cross country as athletes in the distance races can now train on a competitive level year-round. Heather Killeen became the Titans' first Division I cross country All-Amerian in 1994 and then won three events at the 1995 Big West Conference Track Championships. She was one of 10 finalists for 1995 NCAA Woman of the Year. An outstanding setting plus the addition of some outstanding athletes make success a very strong likelihood in the years to come.

#### Tennis

One of the university's many programs on the rise, Fullerton can take advantage of the beautiful climate of Orange County to attract the nation's top athletes to Fullerton. The Titans placed two athletes on the ITA Scholar Athlete All-American Team in 1996, Jennifer Canfield and Kara Kolb. The redevelopment of the tennis facilities in the Sports Complex make Titan tennis a program that is bound to remain competitive in the Big West.

#### Track

Steady improvement and a growing coaching staff have combined to fuel optimism that the Titans will become a competitive force in the Big West Conference. A new running facility and the advancements made in distance running by the cross country team combined with the climate in southern California should ensure Fullerton of a solid track program.

#### Volleyball

Titan volleyball is proving to be a program to watch. Recent success, combined with the obvious attraction of competing against NCAA Championship contenders who are members of the Big West, the nation's strongest volleyball conference make volleyball an exciting attraction. The acquisition of future athletes plus the development of budding stars should create an environment that will enhance the program's success.

# resources

#### **ANTHROPOLOGY MUSEUM**

#### McCarthy Hall 424

The Museum of Anthropology is an educational and research resource for the university and the community. It houses, sponsors and conducts a variety of activities as part of the CSUF Anthropology program, from lecture series to exhibits. Archeaological exhibits in the museum have included artifacts from California, the Middle East, Mesoamerica, the Southwest and Oceania, but the Museum sponsors exhibits that explore all aspects of Anthropology, not just

archeaology. (Also see the Center for California Public Archeaology, and Association of the Friends and Docents of the Anthropology Museum.)

#### **ART GALLERY**

Since 1963 the Art Gallery at California State University. Fullerton has brought to the campus carefully developed art exhibitions that instruct, inspire and challenge the student to the visual arts. Exhibitions of national interest and of museum caliber are presented to the entire student body, faculty and to the community. These act not only as an educational tool but also create interaction between various departmental disciplines and between the campus and the community. In 1970 the Art



Gallery was housed in its current permanent location within the Visual Arts Center. In the following years, the gallery has earned national visibility for its program in Museum Studies and Exhibition Design in which museum preprofessionals may obtain both conceptual and practical experience.

#### DAILY TITAN

Cal State Fullerton's *Daily Titan* is one of the most successful college newspapers in the United States. In recent years, the *Titan* and its reporters, editors and designers have won hundreds of regional and national awards.

The online edition of the *Daily Titan* was selected the best in the nation in the 1998 Associated College Press competition

The *Titan* is published every Tuesday through Friday throughout the academic year. It is produced, written and edited entirely by Cal State Fullerton students. Photographic content is the work of CSUF students.

The Daily Titan has a daily readership of more than 22,000. It is distributed at more than 40 locations on campus, as well as in news racks near the university.

Work on the *Daily Titan* provides intensive experience in news writing, copy editing, page layout, and the myriad other functions necessary to produce a modern daily newspaper.

#### RESOURCES

Anthropology Museum

Art Gallery

Daily Titan

Dining and Vending Services

Fullerton Arboretum

Herbarium

Oral History Program

Reading Clinic

Speech, Language and Hearing Clinic

Theatre and Dance Department

**Productions** 

Titan Shops

Undergraduate Reading Lab

University Channel

#### **DINING & VENDING SERVICES**

California State University Fullerton Foundation Dining Services provides a large selection of dining options. The Titan Student Union Food Court features Togo's sandwiches and salads. "The Best" of Marie Callender's. Green Burrito, Busy Bee Asian Foods. Roundtable Pizza Pronto! and Starbucks Coffee & Bakery in addition to Roundtable Pizza and Pub located in Titan Student Union Underground. On the second floor of Titan Shops, we feature Titan Coffee serving Starbucks coffee and Marie Callender's bakery goods. On the east side of campus, we have Carl's Ir. Restaurant and Langsdorf Hall Express, specializing in Healthy Choice sandwiches, wraps, soup and Starbucks Coffee &

In addition to these venues, we offer a large variety of Pepsi, snack and coffee machines throughout campus. We also offer a wide variety of carts featuring gourmet pretzels, hot dogs and churros carts. Our vending service also includes pay phones throughout the campus and laundry machines in our residence halls.

Our Catering Program offers an extensive selection of prepared menu items from a breakfast meeting, business luncheon, and formal dinner to a wedding reception. We also provide concessions at all university-related sporting events, concerts, etc. For additional information, please call (714) 278-4124.

#### **FULLERTON ARBORETUM**

The Fullerton Arboretum, a 26-acre botanical garden, is located on the northeast corner of campus. The gardens contain plants from around the world. Many are grouped according to their moisture requirements. Others form special collections such as conifers, palms, rare fruits, and California natives. Special plant displays help visitors select materials for their own landscaping.

The recirculating waterfall, streams and ponds are a focal point for migratory waterfowl and visitors from the university and surrounding communities. The Arboretum is an island of serenity in an increasingly metropolitan environment.

The Arboretum also offers opportunities to study local history and culture. Heritage House, nestled in the garden, is the restored residence and medical office of Dr. George C. Clark, an Orange County pioneer physician. The Clark home was built in 1894 and exemplifies the Eastlake Victorian style of architec-

ture. The house is listed in the National Register of Historic Places and the Inventory of California Historic Sites. It is also an Orange County Historic Site. It is open to the public on Sunday afternoons and weekdays by reservation. Trained docents discuss period furnishings and memorabilia.

The CSUF Associated Students (AS) helped to initiate the Fullerton Arboretum by contributing \$10,000 in 1971. Since then, the AS have contributed support monies each year to hire students to help in the maintenance and operation of the Arboretum.

The Friends of Fullerton Arboretum, a volunteer support group, also supplies operating monies, manages the gift and garden shop, propagates plants for plant sales and provides countless hours of volunteer effort on behalf of the Arboretum.

The Fullerton Arboretum is open 8 a.m. to 4:45 p.m., seven days a week. The Arboretum is closed on Thanksgiving, Christmas and New Year's Day.

#### HERBARIUM

The Fay A. MacFadden Herbarium is named after Fay A. MacFadden, who sold her extensive collection of plants to the university just prior to her death in 1964. The collection now includes more than 25,000 vascular plants, about 12,000 bryophytes and nearly 800 lichen specimens. The plants are used as research and teaching tools.

#### **ORAL HISTORY PROGRAM**

The Oral History Program offers students courses, work experience, and information about oral history. The program has conducted over 2,600 interviews on the history of Orange County, the western United States, and other areas of historical study. Either transcriptions or tapes are available for any student to use as they would use any library materials, at the Oral History Archive.

Most of these interviews were done by students in the several classes offered through the Oral History Program. The program also maintains a student staff through internships, work study or grant-supported positions. These staff members receive experience in wordprocessing, editing, book production and organizational administration. They are credited with authorship or assistance on publications, and several alumni of the program now hold important professional positions.

#### PEADING CLINIC

Education Classroom 24 (714) 278-3356

The Reading Clinic serves three major purposes. First, it provides a controlled, supervised setting for the training of reading specialists and classroom teachers who wish to improve their skills in working with learning disabled and reading disabled students.

Second, the clinic serves as a community service providing very low cost, high quality instruction in reading that is not available elsewhere in Orange County. The clinic works closely with the Southern California College of Optometry in order to provide broader services.

The third purpose of the clinic is to provide parent education to community members whose children have reading disabilities. The clinic provides parent inservice sessions and a hot line for phone information. The clinic is proud of its 30-year service to the university and community.

#### SPEECH, LANGUAGE AND HEARING CLINIC

The Speech, Language and Hearing Clinic is an integral part of the curricular programs of the university leading to a B.A. and M.A. Degree in Communicative Disorders. Since 1961 the Department of Speech Communication has provided speech, language and hearing services to the community in conjunction with its training program for professional speech-language pathologists. The graduate program in Communicative Disorders holds the distinction of being one of only two academic programs in California to maintain continuous accreditation by the Council on Academic Accreditation of the American Speech-Language-Hearing Association since September 1969.

The clinic is composed of a Speech Pathology Unit, an Audiology Unit and a Communicative Disorders Research Laboratory with special emphasis given to voice disorders. The clinic offers the services of a resident professional speech-language pathologist who holds the Certificate of Clinical Competence (CCC-SLP); faculty supervisors who are clinically certified and, in addition, hold doctoral degrees in the field; and student clinicians who have met strictly prescribed standards for admission to clinical practicum. Referrals to the clinic come from a variety of sources including: physicians, teachers, rehabilitative centers,

private speech-language pathologists and audiologists, and self-referrals. Services available at the clinic include diagnostic evaluations; therapeutic intervention; audiometric testing; and rehabilitative audiology, including hearing aid evaluations, screening tests for students seeking state credentials, and family counseling relative to problems associated with communicative disorders.

# THEATRE AND DANCE DEPARTMENT PRODUCTIONS

The Department of Theatre and Dance produces six plays and two dance concerts each year on their main stages along with theatre for young audiences, touring plays, MFA Project productions, and original oneacts. CSUF students receive special rates to all Theatre and Dance Department productions.

Twelve out of the last 16 entries in the National Kennedy Center/American College Theatre Festival have been selected for production at the regional festivals, chosen each year from over 75 university entrants. In 1993, for the first time in the history of the Festival, the department was selected to present two original productions; "The Manager" and "All That He Was" at the National Kennedy Center/American College Theatre Festival at the John F. Kennedy Center in Washington, D.C. "All That He Was" was also named as the Kennedy Center representative to an international theatre conference in Barcelona, Spain and performed at that venue

#### TITAN SHOPS

# Titan Center - Commons Building (714) 278-3418

The Titan Center is a multi-level retail center that houses a variety of retail operations. Titan Books, which is located on the upper level, is a full-service bookstore that carries required textbooks, custom-published course packets, textbooks online, as well as a complete general books section. In addition, we offer New York Times Bestsellers at a 20-30 percent discount, magazines, newspapers, and the latest in new releases; one of the largest sections of reference books in the area; and bargain books at prices as low as 50-90 percent off the publisher's price. If the book you want isn't in stock, we will special order it for you at no extra charge.

Also located on the upper level are the Orange County Teacher's Federal Credit Union and Titan Coffee, which features Starbuck's coffee, Marie Callender's baked goods and free Internet access.

Located on the lower level of Titan Shops are: Titan Office, which carries office and school supplies, computers and peripherals and software; Titan Gear, which offers emblematic gifts, clothing and notebooks: and Titan Newsstand, which carries a large selection of magazines and newspapers, as well as scantrons and other test-taking materials. Pulse Copy and Technology Center offers a full range of copying and printing services, as well as specialty products, such as resumes, business cards and posters. You can grab a quick snack, a drink or some ice cream at the Titan Express convenience store; and the Titan Card Shop sells a complete line of Carlton Cards. The TitanCard Office is the place to obtain your required multipurpose university identification card, which verifies eligibility for a variety of campus services.

The Titan Technology Center, also located on the lower level, coordinates orders, service and installation of campus workstations and training. The center provides information regarding any of the hardware platforms or software that support the campus computing initiative; a convenient location for Cal State Fullerton students to subscribe to Titan Access; and a location for vendors to highlight and demonstrate the latest technology they have to offer. Titan Shops is also able to offer faculty members, staff and students the same computer configurations at a discounted price through the Technology Center.

If you have any questions, call us at (714) 278-3418 or visit our Web site at: http://bookstore.fullerton.edu/. Our Web page contains current bookstore hours; dates of promotions, sales, bookstore author signings; computer hardware and software; school supplies and clothing, as well as instructions for ordering textbooks on our Web page.

#### Brief Stop and The Yum

The Brief Stop is located in Langsdorf Hall and The Yum is located in the Titan Student Union. Both are mini-bookstores! You can purchase test-taking materials, school supplies, emblematic gifts, newspapers, magazines, health and beauty aids, and a wide selection of snacks. The Brief Stop and The Yum are open extended hours! So if you need supplies during early morning or late evening, the Brief Stop and The Yum are open for you!

#### Pulse Copy and Technology Center

Pulse Copy offers cutting edge technology tailored for the reprographic needs of the university. Located on the floor level of Titan Center, Pulse is conveniently located for the copy needs of both students and faculty members. Pulse offers full service and selfservice black and white copying, color copies, posters and banners, transparencies, laminating and binding. We also offer selfserve computers with both black and white and Fiery color output. Business cards and rubber stamps are available within 24 hours, along with other customer printing services. If you have any questions, call us at (714) 278-4890 or send us an e-mail to The\_Pulse@fullerton.edu.

#### TitanCard Office

All students are required to obtain their all-purpose university ID card that verifies eligibility for a variety of campus services. The TitanCard offers several options, including that of establishing a TitanTender, or prepaid debit account. CSUF students are welcome to join the Orange County Teachers Federal Credit Union and use their TitanCard as an ATM/POS card with an OCTFCU checking account. Students also have the option to use the TitanCard for CSUF long distance services provided by MCI. For more information about the TitanCard, call the TitanCard office at (714) 278-3555.

#### Orange County Teachers Federal Credit Union (OCTFCU):

CSUF faculty, staff and students are eligible to join Orange County Teachers Federal Credit Union (OCTFCU), a full service, nonprofit, financial institution serving Orange County school and state employees.

As a member, you can choose from a wide variety of products and services including:

Checking and savings accounts

Share Certificates

Individual Retirement Accounts (IRAs)

Credit Cards

Real estate and home equity loans

24-hour ATMs

Master Money debit cards

Personal loans

And much more!

To become a member, simply stop by the branch located on the second floor of the Titan Center, or call our Telephone Service Center representatives Monday through Friday, from 7 a.m. to 7 p.m. at (714) 258-4000 or 8004OCTFCU.

#### UNDERGRADUATE READING LAB

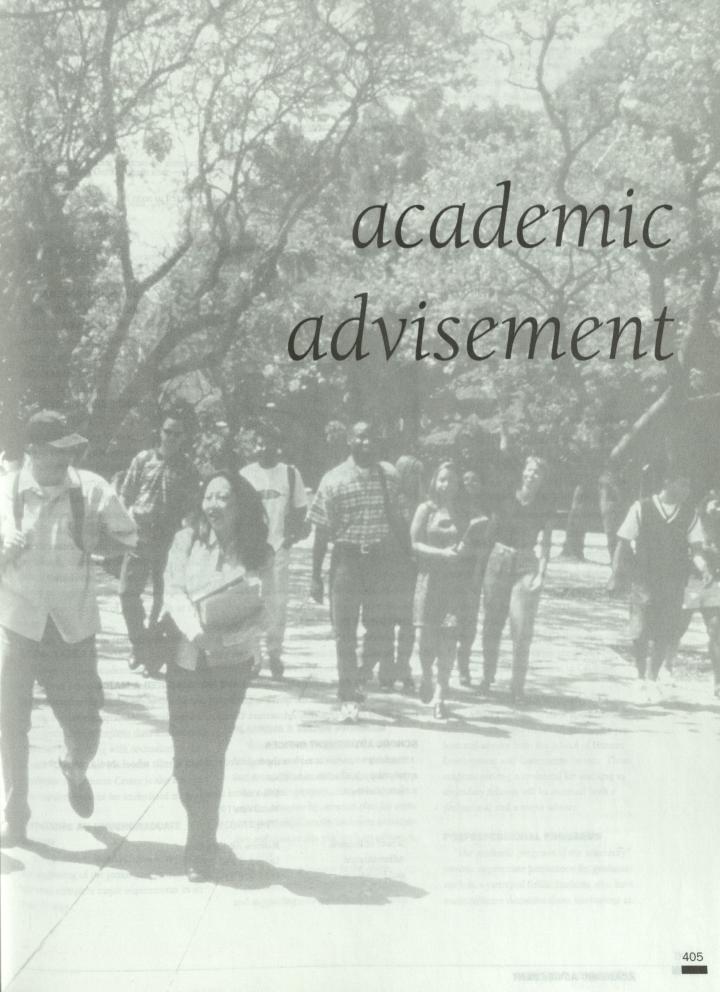
Education Classroom 24A and 18

The Undergraduate Reading
Lab/Professional Library is an essential
element in the Reading Program for both
graduate and undergraduate students. It
serves as a resource for materials and equipment by which undergraduate students can
improve their reading skills and complete
additional class assignments. The lab also
functions as a liaison between faculty and
students, as a diagnostic lab for required or
additional assessment of student skills, and as
a professional resource for graduate students
and faculty.

The lab has also offered services to special students from the Disabled Student Services, Women's Center/Adult Reentry and the Career Planning and Placement Centers. In addition, the development of a professional library and the recent donation of material from the Reading Educators Guild aids graduate students in their research and course work. Finally, a goal of this lab is to develop a base of software materials for both classroom and individual student use.

#### **UNIVERSITY CHANNEL**

In conjunction with cable companies, Titan Channel provides programs to homes throughout Orange County. Students from the School of Communications produce programming that features faculty, administrators, the arts and academic highlights.



# academic AD CSUF Academ CSUF Academ the responsibility dean

#### **ACADEMIC ADVISEMENT POLICY**

CSUF Academic Policy (UPS 300.002) states that:

- the responsibility for ensuring the availability of academic advisement rests with each school dean
- every student should declare a major or school of interest as soon as possible after admission to the university; and

#### **ACADEMIC ADVISEMENT**

Academic Advisement Policy

Choosing General Education Courses and Electives

Advisement in the Major

Advisement for Students Who Have Not Selected a Major

School Advisement Offices

Academic Advisement Center

Undeclared Majors

Choosing An Undergraduate Major

Change of Major, Degree or Credentialed Objective

Departmental Academic Advisement

Preprofessional Programs

Health Professions

Teaching Careers

Immigration Requirements for Licensure

Answers to Your Questions



 all students shall confer with an academic adviser on a regular basis.

# CHOOSING GENERAL EDUCATION COURSES AND ELECTIVES

In keeping with the liberal arts tradition, the university requires its graduates to have sampled a variety of disciplines as part of their general education. The broad categories of general education courses are presented in the catalog section on "General Education."

All students are strongly encouraged to consult with major advisers or the Academic Advisement Center about selection of general education and elective courses.

#### **ADVISEMENT IN THE MAJOR**

Students who have declared a major should consult their departmental adviser on a regular basis for academic advisement.

#### ADVISEMENT FOR STUDENTS WHO HAVE NOT SELECTED A MAJOR

Students who have not declared a major should consult one of the school advisement offices listed below or the Academic Advisement Center to discuss their academic programs.

#### **SCHOOL ADVISEMENT OFFICES**

Students who wish to explore the majors offered by a specific school should contact the appropriate school advisement office:

School of the Arts Office of the Dean

Visual Arts 199 (714) 278-3256

School of Business Advising Center
Administration Langsdorf Hall 700
and Economics (714) 278-2211

School of Communications
Office of the Dean
Education Classroom 48
(714) 278-3355

School of Engineering and Computer Science
Office of the Associate Dean
Computer Science 503
(714) 278-3362

School of Human Development and Community Service Office of the Associate Dean Education Classroom 324 (714) 278-3311

School of Humanities and Social Sciences Office of Student Academic Affairs McCarthy Hall 103 (714) 278-2024

School of Natural Science and Mathematics
Office of Academic Affairs
McCarthy Hall 166
(714) 278-2638

#### **ACADEMIC ADVISEMENT CENTER**

University Hall 179 (714) 278-3606

The Academic Advisement Center provides guidance in the selection of elective and general education courses. It is the administrative center for undeclared undergraduate majors. All problems encountered by the undeclared major, which normally require the assistance of a department chair, are handled by the director of the Academic Advisement Center. No appointment is necessary to engage the assistance of an adviser about various aspects of academic life at the university.

#### **UNDECLARED MAJORS**

Lower-division students who are uncertain about their primary educational or vocational goals may enroll as undeclared majors.

During their freshman and sophomore years, such students may explore their interests and potential by working with counselors in the Career Planning and Placement Center. The Academic Advisement Center is also a major information resource for undeclared majors.

# CHOOSING AN UNDERGRADUATE

Every student should choose a major by the beginning of the junior year so that he or she may complete major requirements in an orderly way. To help students, the university has available a number of useful resources: New Student Orientation programs; summary sheets on majors available from department offices; a variety of counseling and testing services provided by the Career Planning and Placement Center; and brochures and manuals from school and department offices describing their programs of study and later work opportunities. There are student organizations with disciplinary and professional interests and a Career Planning and Placement Center, which has information on vocations and work opportunities to help in the selection of a major.

The task of selecting a major (and often a minor or other complementary specialization) becomes one of crystallizing ideas on the basis of experiences in specific courses, discussions with other students, faculty, the staff of the Academic Advisement Center, etc.

Students must plan freshman or sophomore programs that will permit them to enter or take advanced courses in fields they may want to pursue. They should be sure to begin or complete requirements such as mathematics, chemistry or a foreign language early in their academic careers. Students anticipating graduate or professional study should exercise special care in planning undergraduate programs and seek faculty counseling in the field of interest. Advance examination of the possibilities of graduate or professional study will be helpful to students who have clear educational and vocational objectives.

Those whose goals and objectives have not yet crystallized will have opportunities to take courses in various fields and make up their minds during their lower-division work. They should, however, take full advantage of the opportunities that exist on and outside the campus to learn more about available fields of study and occupational fields.

#### **PLANNING A MAJOR PROGRAM**

When students have selected a major field, they should study all the requirements that are specified in this catalog under their chosen degree program. They should make a tentative semester by semester plan for completing the requirements including prerequisites and discuss this plan with an adviser in the major.

In addition to courses in the major department, related courses in other fields and supporting courses in basic skills may also be required. These should be included in the tentative semester by semester plan.

Some departments require placement tests prior to admission to classes. The times and places for such tests are given in the class schedule. Students should purchase a copy of the class schedule at the Titan Bookstore when registration for classes begins.

# CHANGE OF MAJOR, DEGREE OR CREDENTIALED OBJECTIVE

To change a major, degree, or credential objective, obtain the required form in the Office of Admissions and Records and take it to the appropriate office(s) for signature(s). Such a change is not official until the form has been signed and filed in the Registrar's Office.

# DEPARTMENTAL ACADEMIC ADVISEMENT

Each department follows the advisement system which it finds the most appropriate for its majors.

It is the responsibility of the student to obtain the assistance of an academic adviser.

The adviser is a resource person who can provide information and suggestions and who can assist the student to find the most desirable ways to meet the requirements for graduation and for the major or credential. The final choice of courses and the responsibility for the program lies with the student. Undergraduate students who have not yet decided upon a major (undeclared majors) or who are not seeking a degree will be advised in the Academic Advisement Center.

Academic program advisers are able to offer better advice if students provide lists of courses they have taken and their own copies of transcripts from colleges previously attended (if students are new to Cal State Fullerton).

Graduate students will be assigned a major adviser in their fields of specialization, except in education where all will have a professional adviser from the School of Human Development and Community Service. Those students seeking a credential for teaching in secondary schools will be assigned both a professional and a major adviser.

#### PREPROFESSIONAL PROGRAMS

The academic programs of the university provide appropriate preparation for graduate work in a variety of fields. Students who have made tentative decisions about institutions at

which they may wish to pursue graduate work should consult the catalogs of those graduate schools as they plan their undergraduate programs. Students planning to undertake graduate work should supplement their undergraduate programs by anticipating requirements at major graduate schools.

The university offers a number of professional programs through the master's degree. These include programs in the fine arts, business administration, communications, education, engineering, health education and kinesiology and recreation, public administration, and speech pathology-audiology. Students interested in preparing for professional careers in these areas, either here or at other educational institutions, are encouraged to seek assistance and guidance from CSUF faculty members in these fields.

#### **Prelegal Preparation**

It is recommended that prospective law students prepare themselves in such fields as English, American history, economics, political science (particularly the history and development of English and American political institutions) and such undergraduate courses as judicial process, administrative law, constitutional law and international law, philosophy (particularly ethics and logic), business administration, anthropology, psychology and sociology.

A distribution of course sequences among the social sciences, the natural sciences and the humanities is desirable. Students with interest in becoming lawyers should contact the Prelaw Adviser. Some faculty members in the School of Business Administration and Economics and the Departments of American Studies, History and Political Science also can provide advice and assistance.

#### Pretheological

Students who might be interested in pursuing careers in the ministry, the teaching of religion, and associated fields should take some courses in religion, psychology, anthropology, sociology, philosophy, history, English, speech communication and a foreign language. Students desiring assistance and counseling regarding advanced work in religious studies or professional careers in the ministry or rabbinate may seek help from the faculty in the Department of Comparative Religions.

#### Social Welfare

Students who plan to seek employment in social work or social welfare should prepare

themselves in the fields of human services, psychology (particularly child and adolescent psychology), sociology, anthropology, political science, economics and research methods in social science.

Students who intend to enter a professional school following undergraduate training should learn about the specific prerequisites for admission to the graduate school of their choice. Ordinarily a major in one of the social sciences and some additional work in at least several other social sciences are recommended. Students with interests in pursuing careers in the field of social welfare should contact the Departments of Sociology or Human Services for advice and assistance.

#### **HEALTH PROFESSIONS**

Langsdorf Hall 203 (714) 278-3980

All health professions programs are seeking the best qualified applicants with a good command of communication skills, rigorous basic science preparation, and as broad a general education base as possible.

#### **TEACHING CAREERS**

Students who plan to enter the teaching profession best prepare themselves by developing a depth of knowledge in the subject areas they plan to teach. Teachers of elementary school-children must have a solid foundation of knowledge in all the subjects taught in the elementary classroom. High school teachers must develop expertise in the subject named on their single subject credential. Students are encouraged to seek advice early in their academic careers to most efficiently plan a program of study that effectively blends general education, major, and subject matter preparation requirements. The Center for Careers in Teaching, located in University Hall 178, provides information and advisement for prospective teachers.

# IMMIGRATION REQUIREMENTS FOR LICENSURE

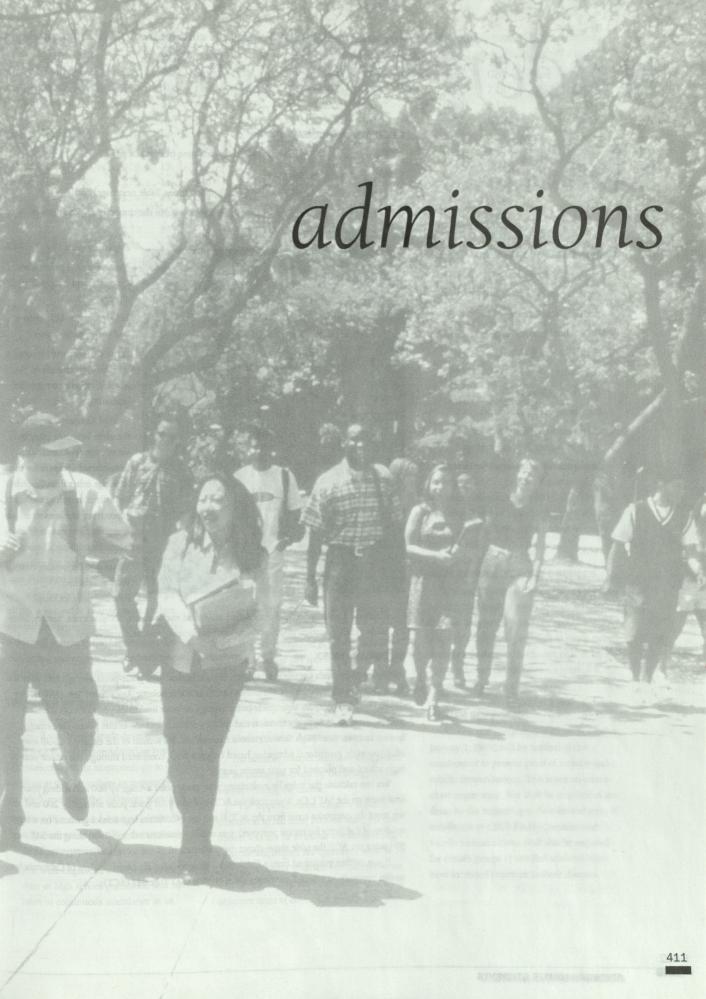
On August 27, 1996, Governor Pete Wilson issued executive Order W-135-96 which requested that the CSU and other state agencies implement "as expeditiously as reasonably practicable" the provision of The Personal Responsibility and Work Opportunity Reconciliation Act (PRAWORA) of 1996 (P.L. 104-193). The Act, also known as the Welfare Reform Act, included provi-

sions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants, as well as benefits for all illegal immigrants.

Students who will require a professional or commercial license provided by a local, state, or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the new Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure. Information concerning the regulation is available from Robert Ericksen, Office of International Education and Exchange, University Hall 244, (714) 278-2787.

#### ANSWERS TO YOUR QUESTIONS

Topic	Where To Go	Location	Telephone
Academic Appeals	Academic Appeals Office	Langsdorf Hall 810	278-3221
Add or Drop a Class	See Class Schedule		278-2300
Address Change	Admissions & Records Information	Landgsdorf Hall 109	278-2300
Admissions/Applications Advisement:	Admissions & Records Information	Langsdorf Hall 109	278-2300
	Andrein Adriana C		200 2525
Undeclared Major  Declared Majors	Academic Advisement Center	University Hall 179	278-3606
Athletics Tickets	Major Department Athletic Ticket Office	DI . 151	270 2702
Child Care	Child Care Center	Physical Education 122	278-2783
Counseling:	Child Care Center	Temporary 200	278-2961
Personal	Counseling and Psychological Services	11	270 2040
Vocational	Career Planning & Placement Center	Langsdorf Hall 205	278-3040 278-3121
Degree Application/Diploma Orders	Graduation Unit	Langsdorf Hall 208	
Degree Evaluation, Undergraduate	Graduation Unit	Langsdorf Hall 108 Langsdorf Hall 108	278-2300 278-2300
Disabled Student Services	Office of Disabled Student Services	University Hall 101	278-2300
Disqualification/Reinstatement	Admissions Counselor	Langsdorf Hall 111	278-2370
Emergency Messages	Vice President for Student Affairs	Langsdorf Hall 805	278-3221
Employment:	vice resident for Student Analis	Langsdon Han 603	270-3221
Business, Industry, Government	Career Planning & Placement Center	Langsdorf Hall 208	278-3121
Educational	Career Planning & Placement Center	Langsdorf Hall 208	278-3121
Minority Relations	Career Planning & Placement Center	Langsdorf Hall 208	278-3121
Student (Part-Time)	Career Planning & Placement Center	Langsdorf Hall 208	278-3121
Staff	Human Resources	Suite 700, College Park,	278-2425
Stall	Tullian Resources	2600 E. Nutwood	210-2423
Enrollment Verification:		2000 L. Ivatwood	
Duplicate I.D. Card	Titan Card Office	Titan Shops	278-3555
Fee Receipt	Cashier	University Hall 180	278-3918
Letter Request	Admissions & Records Counter	Langsdorf Hall 109	278-2300
Extension Class Information	Extended Education Office	Temporary 14	278-2611
Evaluations/General Education	Evaluations Unit	Langsdorf Hall 111	278-2300
Financial Aid	Financial Aid Office	University Hall 146	278-3125
Foreign Student:	I manetal rud Onice	Chirefoldy Final 110	2,03123
Advisement	Major Department		
Permits to Register	International Education & Exchange	University Hall 244	278-2787
Graduate Studies	Graduate Studies Office	McCarthy Hall 129	278-2618
Graduation Requirements (undergraduate)	Graduation Unit	Langsdorf Hall 108	278-2300
Health Insurance	Titan Student Union	Lobby	278-2468
Housing and Transportation	Housing & Residence Life	Cypress House 101	278-2168
Internships and Cooperative Education	Internship Office	Humanities 112	278-2171
Library Information	Pollak Library	Library Lobby	278-2724
Mentor Program	Vice President for Student Affairs	Langsdorf Hall 805	278-3221
Name Change	Admissions & Records Information	Langsdorf Hall 109	278-2300
Organizations and Clubs	Dean of Students Office	Titan Student Union 235	278-3211
Outreach Services	University Outreach Services	University Hall 234	278-2086
Parking:	Oliversity California 22		
Fees	Cashier	University Hall 180	278-3918
Information	Department of Public Safety	Temporary 1200	278-2515
Handicapped	Disabled Student Services	University Hall 101	278-3117
Readmission	Admissions & Records Information	Langsdorf Hall 109	278-2300
Records (Student)	Records Office	Langsdorf Hall 116	278-2300
Registration Fees	Cashier	Langsdorf Hall 180	278-3918
Residency	Evaluations Unit	Langsdorf Hall 111	278-2300
Scholarships	Financial Aid Office	University Hall 146	278-3125
Student Academic Services	Student Academic Services Office	University Hall 143	278-2484
(EOP/SAA/Retention)	Oradent Lieuwenine Services		
	Extended Education Office	Temporary 14	278-2611
Summer Sessions, Information	Testing Services	University Hall 229	278-3838
Test Information	Admissions & Records Information	Langsdorf Hall 109	278-2300
Transcripts	Intensive Learning Experience	University Hall 125	278-7236
Tutoring Veterana Cartification	Veterans Affairs Office	Langsdorf Hall 108	278-2300
Veterans Certification Women's Center	Women's/Adult Reentry Center	University Hall 205	278-3928



# undergraduate student

#### FRESHMEN REQUIREMENTS

You will qualify for regular admission as a first-time freshman if you

- are a high school graduate
- have a qualifiable eligibility index (see Eligibility Index Table next page) and
- 3. have completed with grades of C or better the courses in the comprehensive pattern of college prepatory subject requirements:

#### **UNDERGRADUATE STUDENTS**

Freshmen Requirements

Eligibility Index

Transfer Requirements

High School Honors Courses

Health Screening

Test Scores

TOEFL Requirement

Placement Test Requirements

Determination of Residence for

Nonresident Tuition Purposes

Immigration Requirements for Licensure



English: 4 years

Mathematics, 3 years: algebra, geometry, and intermediate algebra

U.S. History or U.S. history and government: 1 year

Science, 1 year with laboratory: biology, chemistry, physics, or other acceptable laboratory science

Foreign Language: 2 years in the same language (may be waived for applicants who demonstrate competence in a language other than English equivalent to or higher than expected of students who complete two years of foreign language study)

Visual and Performing Arts, 1 year: art, dance, drama/theater, or music

Electives, 3 years: selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts, and agriculture.

#### **ELIGIBILITY INDEX**

The eligibility index is the combination of your high school grade-point average and your test score on either the American College Test (ACT) or the Scholastic Assessment Test (SAT I). For this purpose we compute your grade point average on your final three years of high school studies, excluding physical education and military science, and use bonus points for certain honors courses. (see "High School Honors Courses" in this section of the catalog.) CSUF may offer you early, provisional admission based on your work completed through the junior year of high school and planned for your senior year.

You can calculate the index by multiplying your grade point average by 800 and adding your total score on the SAT I. Or, if you took the ACT, multiply your grade point average by 200 and add ten times the composite score from the ACT. If you are a California high school graduate (or a legal resident of California for tuition purposes), you need a minimum index of 2900 using the SAT I or 694 using the ACT; the table above shows the combinations of test scores and averages required.

If you neither graduated from a California high school nor are a legal resident of California for tuition purposes, you need a minimum index of 3502 (SAT I) or 842 (ACT).

Eligibility Index Table for California High School Graduates or Residents of California

	ACT	SAT		ACT	SAT		ACT	SAT		ACT	SAT		ACT	SATI
GPA	Score	Score	GPA	Score	Score	GPA	Score	Score	GPA	Score	Score	GPA	Score	Score
3.00 a	nd above	qualifies	2.81	14	660	2.60	18	820	2.39	22	990	2.18	26	1160
with a	ny score		2.80	14	660	2.59	18	830	2.38	22	1000	2.17	26	1170
			2.79	14	670	2.58	18	840	2.37	22	1010	2.16	27	1180
2.99	10	510	2.78	14	680	2.57	18	850	2.36	23	1020	2.15	27	1180
2.98	10	520	2.77	14	690	2.56	19	860	2.35	23	1020	2.14	27	1190
2.97	10	530	2.76	15	700	2.55	19	860	2.34	23	1030	2.13	27	1200
2.96	11	540	2.75	15	700	2.54	19	870	2.33	23	1040	2.12	27	1210
2.95	11	540	2.74	15	710	2.53	19	880	2.32	23	1050	2.11	28	1220
2.94	11	550	2.73	15	720	2.52	19	890	2.31	24	1060	2.10	28	1220
2.93	11	560	2.72	15	730	2.51	20	900	2.30	24	1060	2.09	28	1230
2.92	11	570	2.71	16	740	2.50	20	900	2.29	24	1070	2.08	28	1240
2.91	12	580	2.70	16	740	2.49	20	910	2.28	24	1080	2.07	28	1250
2.90	12	580	2.69	16	750	2.48	20	920	2.27	24	1090	2.06	29	1260
2.89	12	590	2.68	16	760	2.47	20	930	2.26	25	1100	2.05	29	1260
2.88	12	600	2.67	16	770	2.46	21	940	2.25	25	1100	2.04	29	1270
2.87	12	610	2.66	17	780	2.45	21	940	2.24	25	1110	2.03	29	1280
2.86	13	620	2.65	17	780	2.44	21	950	2.23	25	1120	2.02	29	1290
2.85	13	620	2.64	17	790	2.43	21	960	2.22	25	1130	2.01	30	1300
2.84	13	630	2.63	17	800	2.42	21	970	2.21	26	1140	2.00	30	1300
2.83	13	640	2.62	17	810	2.41	22	980	2.20	26	1140	†Below	2.00 does	not qualify
2.82	13	650	2.61	18	820	2.40	22	980	2.19	26	1150	for regu	alar admiss	sion

Applicants with grade-point averages above 3.00 (3.61 for nonresidents) are exempt from the test requirement. However, students are urged to take the SAT 1 or ACT since campuses use test results for advisement and placement purposes.

You will qualify for regular admission to programs not "impacted." At present, Cal State Fullerton has no impacted programs, i.e., none for the fall 1999 semester. This situation is subject to change; more current information regarding changes in impacted status will appear in CSU application booklet and on the university's Website http://www.fullerton.edu or http://www.calstate.edu.

#### TRANSFER REQUIREMENTS

You will qualify for admission as a transfer student if you have a grade-point average of 2.0 (C) (2.40 for non-residents) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet the following standards:

- (a) you will meet the freshman admission requirements in effect for the term to which you are applying
- (b) you were eligible as a freshman at the time of high school graduation and have been in continuous attendance in an

- accredited college since high school graduation (not applicable for fall 2000 or subsequent semesters)\*
- (c) were eligible as a freshman at the time of high school graduation except for the college preparatory subjects and have made up the missing subjects at a high school or college and have been in continuous attendance in an accredited college since high school graduation (not applicable for fall 2000 or subsequent semesters)\*
- (d) you have completed at least 56 transferable semester (84 quarter) units and meet requirements based on high school graduation date. Nonresidents must have a 2.4 grade point average or better. (See Admission Requirements for Undergraduate Transfer Students.)

Transferable courses are those designated for baccalaureate credit by the college or university offering the course.

\* For upper-division transfers seeking admission to fall term 2000 or later, the first option will not be available to establish eligibility for admission. All applicants with 56 or more transferable semester (84 quarter) units will be required to have completed at least 30 semester units of courses at a level equivalent

to courses that meet general education requirements. The 30 semester units must include all of the general education requirements in communication in English language (3 courses) and at least the three semester units (typically 1 course) required in mathematics

#### **HIGH SCHOOL HONORS COURSES**

Up to eight semesters of honors courses, taken in the last two years of high school, that are designated honors in approved subjects receive additional points in grade point average calculations. Each unit of A in an approved courses will receive a total of 5 points; B, 4 points; C, 3 points.

#### **HEALTH SCREENING**

All new and readmitted students born after January 1, 1957, will be notified of the requirement to present proof of measles and rubella immunizations. This is not an admissions requirement, but shall be required of students by the beginning of their second term of enrollment in CSUF. Proof of measles and rubella immunizations shall also be required for certain groups of enrolled students who have increased exposure to these diseases.

#### Measles and Rubella Immunizations

The campus shall notify certain students born after January 1, 1957, of the CSU requirement to present proof of measles and rubella immunizations by the beginning of the second term of enrollment. At the beginning of the next term of enrollment, those so notified who have not presented acceptable proof of the immunizations shall be notified further of the need to comply before receiving registration materials to enroll for the succeeding term. This is not an admission requirement

Persons subject to these health screening provisions include:

- New students enrolling fall 1986 and later;
- Readmitted students reenrolling fall 1986 and later;
- Students who reside in campus residence
- Students who obtained their primary and secondary schooling outside the United States:
- Students enrolled in dietetics, medical technology, nursing, physical therapy, and any practicum, student teaching, or field work involving preschool-age children, school-age children, or taking place in a hospital or health care setting.

The Student Health Center shall provide immunizations without cost to those students unable to obtain acceptable proof of immunizations

#### **TEST SCORES**

Freshmen and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college credit must submit scores, unless exempt (See "Eligibility Index" section), from either the Scholastic Assessment Test (SAT I) of the College Board or the American College Testing program (ACT). If you are applying to an impacted program and are required to submit test scores, you should take the test no later than early December if applying for fall admission. Test scores are also used for advising and placement purposes. Registration forms and dates for the SAT I or ACT are available from high school or college counselors or from a CSU campus testing office. Or, you may write to or call:

The College Board (SAT) Registration Unit, Box 6200 Princeton, New Jersey 08541 (609) 771-7588

Registration Unit, P.O. Box 414 Iowa City, Iowa 52240 (319) 337-1270

#### TOEFL REQUIREMENT

All undergraduate applicants regardless of citizenship who have not attended schools at the secondary level or above for at least three years full-time where English is the principal language of instruction must present a score of 500 or above on the paper-based version or 173 or above on the computer-based version of the Test of English as a Foreign Language (TOEFL). The TOEFL results submitted must not have been earned more than two years prior to the desired enrollment date. A minimum score of 500 or above on the paperbased version or 173 or above on the computer-based version of TOEFL is required. Individual campuses may require a higher score. Institutional TOEFL tests administered outside of CSUF are not acceptable.

#### **PLACEMENT TEST REQUIREMENTS**

The CSU requires new students to be tested in English and mathematics as soon as possible after they are admitted. These are not admission tests, but a way to determine whether you are prepared for college work and, if not, to counsel you how to strengthen your preparation. You might be exempted from one or both of the tests if you have scored well on other specified tests or completed appropriate courses.

#### English Placement Test (EPT)

The English Placement Test (EPT) is required of all entering California State University undergraduate students who are not otherwise exempt. Exemptions are granted only for those students who present proof of having met one of the following criteria:

- a score of 25 or above on the ACTE (Enhanced) English Test (taken October 1989 or later)
- a score of 3, 4 or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Advanced Placement Program
- a satisfactory score on the CSU English Equivalency Examination that qualifies a student for exemption from the English Placement Test
- a score of 470 or above on the Verbal section of the College Board Scholastic Aptitude Test (SAT) taken prior to March 1994

- American College Testing Program a score of 470 or above on the Verbal section of the College Board SAT I Reasoning Test taken between March 1994 and March 1995
  - a score of 22 or above on the American College Test (ACT) English Usage Test taken prior to October 1989
  - a score of 25 or above on the enhanced ACT English Test taken October 1989 or
  - a score of 600 or above on the College Board Achievement Test in English Composition with essay taken prior to January 1994
  - a score of 600 or above on the College Board SAT II\* Writing Test taken between January 1994 and March 1995
  - a score of 550 or above on the Verbal section of the College Board SAT I Reasoning Test taken on or after April 1,
  - a score of 660 or above on the College Board Achievement Test in English Composition with essay taken prior to January 1994
  - a score of 660 or above on the College Board SAT II\* Writing Test taken on or after April 1, 1995
  - completion of an acceptable college course in English composition of four quarter or three semester units with a grade of C or better.

\* Note: The College Board SAT and Achievement Tests were replaced by SAT I and SAT II respectively, beginning March 1994. Beginning April 1, 1995, the SAT I and SAT II exams have beem scored on a new scale.

California State University, Fullerton (CSUF) has established the following policy regarding compliance with this regulation:

All new and continuing undergraduate students who have not taken the EPT and who are not otherwise exempt must take the test prior to the beginning of their first semester of enrollment at CSUF. Students can only take the EPT exam once. Students who fail to comply with this policy will not be permitted to register for class.

Students who have taken the EPT exam but have not been placed in English 101 must remediate their English skills by taking Developmental Writing. Students must complete the remediation course work during their first semester of enrollment. If they are not able to pass the remediation course, they must retake it during their second semester. Failure to complete remedial course work within two terms will jeopardize a student's continued enrollment in the university.

#### Entry Level Mathematics (ELM) Test

The (ELM) examination tests for entry level mathematics skills acquired through three years of rigorous college preparatory mathematics course work (normally Algebra I, Algebra II and Geometry). All new undergraduate students must take the test or be exempted from it prior to placement in appropriate university mathematics course work. Specific policies regarding retesting and placement will be determined by the campus. Exemptions from the test are given only to those students who can present proof of one of the following:

- a score of 3 or above on the College Board Advanced Placement Mathematics examination (AB or BC)
- a score of 3 or above on the College Board Advanced Placement Statistics examination
- a score of 560 or above on the mathematics section of the College Board SAT taken prior to March 1994
- A score of 560 or above on the mathematics section of the College Board SAT I
  Reasoning test OR on the College Board
  SAT II\*\* Mathematics Tests Level I, II, or
  IIC (Calculator) taken on or after March
  1, 1994
- a score of 24 or above on the American College Testing Mathematics Test taken prior to October 1989
- a score of 25 or above on the enhanced ACT Mathematics Test taken October 1989 and later
- a score of 560 or above on the College Board Mathematics Achievement Test Level I or Level II taken prior to March 1994
- completion and transfer to the CSU of a college course that satisfies the General Education-Breadth Requirement or the Intersegmental General Education Transfer Curriculum requirement in Quantitative Reasoning, provided such course was completed with a grade of C or better.

The ELM test is offered only to all students not otherwise exempted, and has no effect on admission decisions. It must be taken before the student can register in any courses. California State University, Fullerton established the following policy regarding compliance with this regulation:

#### Requirement To Take The ELM Test:

Effective fall 1998, all new and continuing undergraduate students who have not taken the ELM test and who are not otherwise exempt must take the test prior to registering for of their first semester of enrollment at CSUF. Students who fail to comply with this policy will not be permitted to register for classes. Students who fail to comply must complete the remediation course work during their first semester of enrollment. If they are not able to passs the remediation course, they must retake it during their second semester. Failure to complete remedial course work within two terms will jeopardize a student's continued enrollment in the university.

#### Students Who Have Taken But Not Passed The ELM Test

Students who have taken but failed to pass the ELM test must take a remedial math course(s). Intensive Learning Experience is responsible for monitoring compliance with this provision and for certifying the appropriateness of the course in which the student wishes to participate.

Information bulletins and registration materials for the EPT and ELM will be mailed to all students subject to the requirements. The materials may also be obtained from the Office of Admissions and Records or the campus test office.

# DETERMINATION OF RESIDENCE FOR NONRESIDENT TUITION PURPOSES

The campus admissions office determines the residence status of all new and returning students for nonresident tuition purposes. Responses to the Application for Admission and, if necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish a right to classification as a California resident will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by The California State University is found in Education Code Sections 68000-68090, 68121, 68123, 68124, and 89705-

89707.5, and in Title 5 of the California Code of Regulations, Sections 41900-41912. A copy of the statutes and regulations is available for inspection in the campus admissions office.

Legal residence may be established by an adult who is physically present in the state and who has the legal capacity and who, at the same time, intends to make California his or her permanent home. Steps must be taken at least one year prior to the residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residence. The steps necessary to show California residency intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California; filing resident California state income tax forms on total income; maintaining California vehicle plates and operator's license; ownership of residential property or continuous occupancy or renting of an apartment on a lease basis where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of the student's stay in California.

In general, an unmarried minor (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of an unmarried minor who has a parent living cannot be changed by the minor's own act, by the appointment of a legal guardian, or by the relinquishment of a parent's right of control.

A married person may establish his or her residence independent of his or her spouse.

An alien may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor alien derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required by law to complete a supplemental questionnaire concerning financial independence. The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. A residence determination date is set for each academic term.

At the Fullerton campus, the residence determination date for the fall term is September 20, and for the spring term is January 25.

Questions regarding residence determination dates should be directed to the campus admissions office which can give you the residence determination date for the term for which you are registering.

There are exceptions from nonresident tuition, including:

- Persons below the age of 19 whose parents were residents of California but who left the state while the student, who remained, was still a minor. When the minor reaches age 18, the exception continues for one year to enable the student to qualify as a resident student.
- Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date, and entirely self-supporting for that period of time.
- 3. Persons below the age of 19 or adults, who have lived with and been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adults must have been a California resident for the most recent year.
- 4. Dependent children and spouses of persons in active military service stationed in California on the residence determination date. The exception, once attained, is not affected by retirement or transfer of the military person outside the state.
- 5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception continues until the military personnel has resided in the state the minimum time necessary to become a resident.
- Effective January 1, 1996, military personnel in active service in California for more than one year immediately prior to

- being discharged from the military.

  Eligibility for this exception runs from the date the student is discharged from the military until the student has resided in state the minimum time necessary to become a resident.
- 7. Dependent children of a parent who has been a California resident for the most recent year. This exception continues until the student has resided in the state the minimum time necessary to become a resident, so long as continuous residence is maintained at an institution.
- 8. Graduates of any school located in
  California that is operated by the United
  States Bureau of Indian Affairs, including,
  but not limited to, the Sherman Indian
  High School. The exception continues so
  long as continuous attendance is maintained by the student at an institution.
- Certain credentialed, full-time employees of California school districts.
- 10. Full-time State University employees and their children and spouses: State employees assigned to work outside the State and their children and spouses. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for one year.
- 11. Certain exchange students.
- 12. Children of deceased public law enforcement or fire suppression employees, who were California residents, and who were killed in the course of law enforcement or fire suppression duties.

The initial campus determination of residency classification is made by the evaluations unit of Admissions and Records. The final campus residency decision is made by the Director of Admissions and Records. Written appeals may be made to the Director in Langsdorf Hall 102.

Any student, following a final campus decision on his or her residence classification, only may make written appeal within 120 calendar days of notification of the final decision on campus of the classification to:

The California State University
Office of General Counsel
400 Golden Shore
Long Beach, California 90802-4275

The Office of General Counsel may make a decision on the issue, or it may send the

matter back to the campus for further review. Students classified incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the California Code of Regulations. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for so qualifying changes, must immediately notify the admissions office. Applications for a change in classification with respect to a previous term are not accepted.

The student is cautioned that this summation of rules regarding residency determination is by no means a complete explanation of their meaning. The student should also note that changes may have been made in the rate of nonresident tuition, in the statutes, and in the regulations between the time this catalog is published and the relevant residence determination date.

# IMMIGRATION REQUIREMENTS FOR LICENSURE

On August 27, 1996, Governor Pete Wilson issued Executive Order W-135-96 which requested that the CSU and other state agencies implement "as expeditiously as reasonably practicable" the provision of The Personal Responsibility and Work Opportunity Reconciliation Act (PRAWORA) of 1996 (P.L. 104-193). The Act, also known as the Welfare Reform Act, included provisions to eliminate eligibility for federal and state public benefits for certain categories of lawful immigrants, as well as benefits for all illegal immigrants.

Students who will require a professional or commercial license provided by a local, state or federal government agency in order to engage in an occupation for which the CSU may be training them must meet the immigration requirements of the new Personal Responsibility and Work Opportunity Reconciliation Act to achieve licensure. Information concerning the regulation is available from Robert Ericksen, Office of International Education and Exchange, University Hall 244, (714) 278-2787.

# The at any of the campuses of The old or community college. An electronic

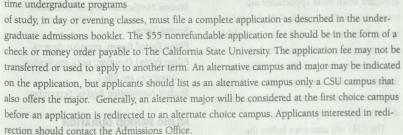
#### INTRODUCTION

Applications may be obtained from the admissions office at any of the campuses of The California State University or at any California high school or community college. An electronic version of the CSU application is accessible on the World Wide Web at http://www.CSUMENTOR.edu/. Requirements for admission to California State University, Fullerton are in accordance with Title 5, Chapter 1, Sub-chapter 3, of the California Code of Regulations. A student unsure of these requirements should consult a high school or community college counselor or the

admissions office at California State University, Fullerton.

The CSU advises prospective students that they must supply complete and accurate information on the application for admission, residence questionnaire and financial aid forms. Further, applicants must submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate and authentic application documents may result in denial of admission, cancellation of academic credit, suspension or expulsion (Section 41301 of Title 5, California Code of Regulations).

Prospective students, applying for part-time or fulltime undergraduate programs



Applicants are required to include their correct social security numbers in designated places on applications for admission pursuant to the authority contained in Section 41201, Title 5, California Code of Regulations, and Section 6109 of the Internal Revenue Code. The university uses the social security number to identify records pertaining to the student, as well as to identify the student for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the university to file information returns that include the students social security number and other information, such as the amount paid for qualified tuition, related expenses, and interest on educational loans. That information is used to help determine whether a student, or a person claiming a student as a dependent, may take a credit or deduction to reduce federal income taxes.



#### **APPLICATIONS PROCEDURES**

How to Apply for Admission
Impacted Programs
Application Filing Periods
Filing Period Duration
Application Acknowledgement
Hardship Petitions
Records Retention

#### **HOW TO APPLY FOR ADMISSION**

- Submit a completed application for admission within the announced filing period accompanied by the required application fee to:
  - Office of Admissions and Records California State University, Fullerton P. O. Box 6900
  - Fullerton, California 92834-6900
- When asked to do so, request required transcripts of records of all previous scholastic work from each school or college attended. The transcripts required at CSUF are:
  - for undergraduate applicants with fewer than 56 transferable semester units:
    - (a) the high school transcript, and
    - (b) an official transcript from each college or university attended.
  - for undergraduates with 56 or more transferable semester units:
    - (a) an official transcript from each college or university attended.
    - (b) high school transcript may be required.
  - · for graduates:
    - (a) applicants for unclassified post baccalaureate standing with no degree or credential objective must submit a transcript from the college or university where the baccalaureate was earned. Further, one transcript from other institutions attended is required as necessary so that the university has a complete record of the last 60 semester units attempted prior to enrollment at Fullerton.
    - (b) applicants for a master's degree or teaching credential, or both, must submit two copies of the transcript from each college or university attended.

Note: In addition, all students should have a personal set of college transcripts for advising purposes. All transcripts must be received directly from the issuing institutions and become official records of the university; such transcripts therefore cannot be returned or reissued. Foreign language transcripts must be accompanied by certified English translations.

3. All undergraduate students who have completed fewer than 56 semester or 84 quarter units of transferable work are required to submit scores from either one of two national testing programs before eligibility for admission to the university can be determined. This requirement does not affect undergraduate students who have previously attended CSUF and who have submitted ACT or SAT scores at the time of their first admission. Registration forms and test dates for either test may be obtained from school or college counselors, from the address below, or from campus testing offices. For either test, submit the registration form and fee at least one month prior to the test date.

ACT Address

American College Testing Program, Inc. Registration Unit, P.O. Box 414 Iowa City, Iowa 52243 (319) 337-1270

SAT Address
The College Board (SAT 1)
Registration Unit, P.O. Box 6200
Princeton, New Jersey 08541
(609) 771-7588

Applicants to graduate programs must submit the scores of any qualifying examinations required in their prospective programs of study.

#### IMPACTED PROGRAMS

The CSU designates programs to be impacted when more applications are received in the first month of the fall and spring filing period than the spaces available. Some programs are impacted at every campus where they are offered; others are impacted at some campuses but not all. You must meet supplementary admissions criteria if applying to an impacted program.

The CSU will announce before the opening of the fall filing period which programs are impacted for the academic year. That announcement will be published in the CSU Review and distributed to high school and college counselors. Information about the supplementary criteria is also sent to program applicants.

You must file your application for admission to an impacted program during the first month of the filing period. Further, if you wish to be considered in impacted programs

at two or more campuses, you must file an application to each.

Supplementary Admission Criteria: Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade point average, and a combination of campus-developed criteria. If you are required to submit scores on either the SAT I or ACT, you should take the tests no later than November if applying for fall admission. The supplementary admission criteria used by the individual campuses to screen applicants appear periodically in the CSU Review and are sent by the campuses to all applicants seeking admission to an impacted program.

Unlike unaccommodated applicants to locally impacted programs, who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major, but may choose an alternative major either at the first choice campus or another campus.

At the time of the preparation of this catalog, no majors at California State
University, Fullerton have been declared impacted. Such circumstances are liable to change so early application is advised.

#### **APPLICATION FILING PERIODS**

Fall Term:

Filing Period Begins: previous November.
Filing Period Duration: until application
categories are filled.

Student Notification Begins: December.

#### Spring Term:

Filing Period Begins: previous August.
Filing Period Duration: until application categories are filled.

Student Notification Begins: September.

#### **FILING PERIOD DURATION**

Each campus accepts applications until capacities are reached. Many campuses limit undergraduate admission in an enrollment category because of overall enrollment limits.

If applying after the initial filing period, consult the campus admission office for current information.

#### APPLICATION ACKNOWLEDGMENT

You may expect to receive an acknowledgment from your first choice campus within several weeks of filing the application. A notice that space has been reserved for you will also include a request that you submit the records necessary for the campus to evaluate your qualifications. You may be assured of admission if the evaluation of your qualifications indicates that you meet CSU admission requirements and campus requirements for admission to an impacted program. Such a notice is not transferable to another term or to another campus.

#### HARDSHIP PETITIONS

Fullerton has established procedures to consider qualified applicants who would be faced with an extreme hardship if not admitted. Prospective petitioners should write to the admissions officer and document extenuating circumstances that warrant special consideration.

#### **RECORDS RETENTION**

The university retains the admissions materials for those who apply, but who for whatever reason do not enroll for two years. For those who do enroll the university will retain the materials in student folders, including transcripts of the record of work completed elsewhere, for five years beyond the date of last attendance. Records of academic performance at California State University, Fullerton, including individual student records, faculty grade lists, and graduation lists are kept permanently.

# admission require ADMISSION REQUIREMENTS FOR FIRST-TIME FRESHMEN High School Graduates

You will qualify for regular admission as a first-time freshman if you

- 1. are a high school graduate
- 2. have a qualifiable eligibility index (see section regarding eligibility index), and

#### **ADMISSION REQUIREMENTS**

Admission Requirements for First-Time Freshmen

Admisison Requirements for Undergraduate Transfer Students

Admission Requirements for International Students

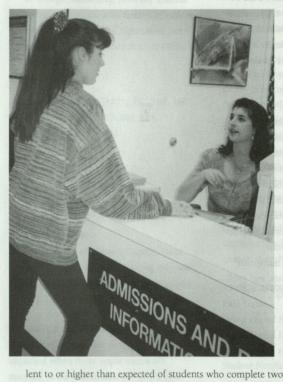
American Language Program

Admission Requirements for Postbaccalaureate and GraduateStudents

Cancellation of Admission

Admission Requirements for Summer Session Students

Readmission of Former Students



3. have completed, with grades of C or better, in each of the courses in the comprehensive pattern of college preparatory subject requirements:

English: 4 years

Mathematics, 3 years: algebra, geometry, and intermediate algebra

U.S. History or U.S. history and government: 1 year

Science, 1 year with labo ratory: biology, chemistry, physics, or other acceptable laboratory science

Foreign Language: 2 years in the same language (may be waived for applicants who demonstrate competence in a language other than English equiva-

lent to or higher than expected of students who complete two years of foreign language

Visual and Performing Arts, 1 year: art, dance, drama/ theater, or music

Electives, 3 years: selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts, and agriculture

#### Subject Requirements

The California State University requires that first-time freshman applicants complete, with a C or better, a comprehensive pattern of college preparatory study totaling 15 units. A "unit" is one year of study in high school. Within the 15 units completed, up to one unit (one year) in visual and performing arts or foreign language may be missing and offset by a college preparatory course(s) in other areas. The missing unit of visual and performing arts or foreign language must be completed either prior to, or by the end of the first year, of CSU enrollment. This provision is effective through the 2000-2001 academic year.

Foreign Language Subject Requirement: The foreign language subject requirement may be satisfied by applicants who demonstrate competence in a language other than English equivalent to or higher than expected of students who complete two years of foreign language study. Consult with your school counselor or any CSU campus admission or relations with schools office for further information. Please consult with any CSU admissions office for further information about alternative ways to satisfy the subject requirements.

#### Substitutions for Disabled Students

Applicants with disabilities are encouraged to complete college preparatory course requirements if at all possible. If you are an applicant judged unable to fulfill a specific course requirement because of your disability, alternative college preparatory courses may be substituted for specific subject requirements. Substitutions may be authorized on an individual basis after review and recommendation by your academic adviser or guidance counselor in consultation with the director of CSUF's Disabled Student Services. You should be aware that failure to complete courses required for admission may limit your later enrollment in certain majors, particularly those involving mathematics. For further information and substitution forms, please contact the director of CSUF's Disabled Student Services.

#### **Provisional Admission**

The university may provisionally admit first-time freshman applicants based on their academic performance through the junior year of high school and planned for the senior year. California State University, Fullerton will monitor the senior year of study of those provisionally admitted to ensure that those so admitted complete their senior year of studies satisfactorily, including the required college preparatory subjects, and graduate from high school. A final, official high school transcript should be forwarded to the Admissions Office as soon as final senior grades and the graduation date have been posted.

#### **High School Students**

Students still enrolled in high school will be considered for enrollment in certain special programs if recommended by the principal and the appropriate campus department chair and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given program and does not constitute the right to continued enrollment.

#### **Adult Reentry Students**

Adult Reentry students are expected to meet the requirements for regular admission. However, an applicant who is twenty-five years of age or older may be considered for admission outside of normal parameters if he or she has not been enrolled in college as a full-time student for more than one term during the last five years. Consideration for

exceptional admission will be based upon the judgement as to whether or not the applicant is as likely to succeed as a regularly admitted freshman or transfer. This judgement will include an assessment of basic skills in the English Language and mathematical computation including, but not limited to, completion of English Composition and a transferable college-level math course. Interested adult students should contact the Office of Adult Reentry at (714) 278-3889.

#### ADMISSION REQUIREMENTS FOR UNDERGRADUATE TRANSFER

You will qualify for admission as a transfer student in a non-impacted major if you have a grade point average of 2.0 (C) or better (2.4 nonresidents) in all transferable units attempted, are in good standing at the last college or university attended, and meet one of the 4 following standards:

- you will meet the freshman admission requirements in effect for the term to which you are applying (See "Freshman Requirements" in the preceding section).
- you are eligible as a freshman at the time of high school graduation and have been in continuous attendance in an accredited college since high school graduation.
- you were eligible as a freshman at the time of high school graduation except for the subject requirements, have made up the missing subjects and have been in continuous attendance in an accredited college since high school graduation.
- you have completed at least 56 transferable (84 quarter) units and meet the requirements listed below based on high school graduation date. Nonresidents must have a 2.4 grade point average or better

Applicants who graduated from high school 1988 or later:

- have completed all subject requirements in effect when graduating from high school (can use both high school and college coursework)\* or,
- have completed at least 30 semester units of college course work with a grade of C or better in each course to be selected from courses in English, arts and humanities, social science, science and mathematics at a level at least equivalent to courses that meet general education

- requirements. The 30 units must include all of the general education requirements in communication in the English language and critical thinking (at least 9 semester units) and the requirements in mathematics/quantitative reasoning (usually 3 semester units), or
- the Intersegmental General Education
   Transfer Curriculum (IGETC) requirements in English communication and mathematical concepts and quantitative reasoning
- for upper-division transfers seeking admission to fall term 2000 or later, the first option will not be available to establish eligibility for admission. All applicants with 56 or more transerable semester (24 quarter) units will be required to have completed at least 30 semester units of courses at a level equivalent to courses that meet general education requirements. The 30 semester units must include all of the general education requirements in communication in English language (3 courses) and at least the three semester units (typically 1 course) required in mathematics.

Transferable courses are those designated for Baccalaureate credit by the college or university offering the courses.

# ADMISSION REQUIREMENTS FOR INTERNATIONAL STUDENTS

The university is pleased to accept applications from international students. The CSU must assess the academic preparation of foreign students. For this purpose, "foreign students" include those who hold U.S. visas as students, exchange visitors, or in other non-immigrant classifications.

The CSU uses separate requirements and application filing dates in the admission of foreign students. Verification of English proficiency (See the section on the TOEFL Requirement for undergraduate applicants), financial resources, and academic performance are all important considerations for admission. Academic records from foreign institutions must be on file at least 8 weeks before registration for the first term and, if not in English, must be accompanied by certified English translations.

Freshman applicants applying directly from overseas should have outstanding academic qualifications and meet TOEFL score requirements. Applicants who are graduates

of foreign secondary schools must have preparation equivalent to that required of eligible California high school graduates. The university will carefully review the previous record of all such applicants and only those with promise of academic success equivalent to that of eligible California high school graduates will be admitted. Undergraduate transfers, who have completed a two-year program in an accredited institution of higher education, with a good academic record and satisfactory TOEFL scores, shall receive priority for admission.

Postbaccalaureate applicants who have completed a bachelor's degree or its equivalent, with a strong academic record, and satisfactory TOEFL scores from an accredited institution may be considered for admission as graduate students.

The university has established deadlines to insure the timely processing of all applications and to enable admitted applicants to make arrangements to reach the U.S. and the campus prior to orientation and registration. Early application is strongly advised due to strong demand for programs. Newly admitted students are required to take an English Placement Examination prior to enrollment in classes (mid-August for fall semester and mid-January for spring semester).

Applications may be submitted according to the following schedule:

#### For Fall Semester

Apply beginning November 1 of the preceding year. Application must be completed with supporting documents by April 15.\*

#### For Spring Semester

Apply beginning August 1 of preceding year. Application must be completed with supporting documents by October 31.\*

All international student applicants must declare a major field of study when the application is filed. Campus programs of study which receive more applications than spaces are available or have been declared impacted are not open to nonresidents, foreign or domestic.

#### TOEFL Requirement

All applicants, regardless of citizenship, whose native language is other than English are required to present scores for the Test of English as a Foreign Language (TOEFL) before they can be admitted to the university unless they have attended for at least three years, full-time, an educational institution at the secondary level or above where English is

the principal language of instruction.
Undergraduate applicants must achieve a score of 500 on the paper-based TOEFL exam or 173 on the computer-based TOEFL; graduate applicants or second B.A. degree applicants a score of 550 on the paper-based exam or 213 on the computer-based TOEFL; graduate music applicants 560 or 220 respectively; MBA applicants 570 or 230 respectively; and graduate TESOL applicants a score of 573 or 230 respectively. Adequate performance on the TOEFL is mandatory for admission.

Applicants should obtain the TOEFL Bulletin of Information and registration forms well in advance. Copies of this bulletin and registration forms are often available at American embassies and consulates, offices of the United States Information Service, United States educational commissions and foundations abroad, bi-national centers, and several private organizations. Those who cannot obtain locally a TOEFL Bulletin of Information should write to: Test of English as a Foreign Language, Educational Testing Services, P.O. Box 6151, Princeton, New Jersey, USA, 08541-6151.

#### Sponsorship

International student applicants must include a statement of financial support accompanied by a bank statement from their sponsor. Students sponsored by an international organization or home government agency must include a letter of scholarship support specifying this university and the students proposed degree and program of study.

#### Transcripts

Transcripts of all educational documents in languages other than English must be accompanied by translation into English certified by independent agencies. All academic records must be received directly from the issuing institutions and become official records of the university.

#### Student Visas

International student applicants who are admitted by the university will be issued form I-20 which is used to obtain an F-1 student visa from a U.S. Embassy or Consulate overseas. Students transferring from a U.S. institution will use form I-20 to apply for transfer authorization through the Immigration and Naturalization Service. Arrival, orientation and registration information from the Office of International

Education and Exchange will accompany the admission materials mailed to new students.

#### Insurance Requirement

Effective August 1, 1995, as a condition of receiving an I-20 or IAP-66 form, all F-1 and J-1 visa applicants must agree to obtain and maintain health insurance as a condition of registration and continued enrollment in the California State University. Such insurance must be in amounts as specified by the United States Information Agency (USIA) and NAFSA: Association of International Educators. The campus president or designee shall determine which insurance policies meet these criteria. Further information may be obtained from the Office of International Education and Exchange.

#### **AMERICAN LANGUAGE PROGRAM**

The American Language Program welcomes international students who want to improve their English language skills and prepare for study in a U.S. university.

American Language Program (ALP) classes provide intensive practice in grammar, vocabulary, listening, speaking, reading, writing and academic skills while promoting an understanding of U.S. culture and society. Classes are small, so students will receive the individual attention they need to help them achieve rapid fluency in English.

All students entering the ALP take a placement test. On the basis of the test results, they are placed in one of six proficiency levels. Students in the beginning and intermediate levels attend multi-skill classes 24 hours per week. Students in advanced levels may select specialized classes such as Business English, Public Speaking and TOEFL preparation in addition to required classes.

No university credit is given for ALP classes; however, with the consent of the program director, qualified advanced students may take one or two classes for university credit through Extended Education.

The ALP also provides its students with numerous support services that range from personal and academic advisement to a full calendar of social and recreational activities. For further information, contact the Director of the American Language Program at (714) 278-2909.

# ADMISSION REQUIREMENTS FOR POSTBACCALAUREATE AND GRADUATE STUDENTS

See admissions information in the "Graduate Regulations" section of this catalog.

#### **CANCELLATION OF ADMISSION**

A student admitted to the university for a given semester but who does not register in the specified semester will have the admission canceled. The student must file a new application form when again seeking admission and must follow the complete application procedure and meet the current admission requirements.

# ADMISSION REQUIREMENTS FOR SUMMER SESSION STUDENTS

Although the quality of the program and most of the course offerings are the same as in the regular session, students who wish to enroll in summer session courses must register for them through the Office of Extended Education. Students normally must be high school graduates, however, and are expected to have satisfied the prerequisites for the courses in which they register. Admission to summer session does not grant admission to the regular session.

#### **READMISSION OF FORMER STUDENTS**

A student previously enrolled in the university, planning to return after an absence of more than one semester, must file a new application for admission. Unless a leave of absence was granted, catalog requirements at the time of readmission will apply. Please see the "Stop-Out Policy" section in the regulations subchapter of this catalog for further information on applications for readmission.

#### Former Students in Good Standing

A student who left the university in good standing will be readmitted provided any academic work attempted elsewhere since the last attendance does not change his or her scholastic status. Transcripts of the record of any work attempted in the interim are required.

#### Former Students Who Were on Probation

A student on probation at the close of the last enrollment will be readmitted on probation provided he or she is otherwise eligible. The student must furnish transcripts of any college work taken during the absence.

#### Former Students Who Were Disqualified

The readmission of a previously disqualified student is by special action only.

Consideration for readmission is primarily based on evidence that the student has significantly raised the CSUF grade-point average through grades in CSUF's Extended

Education program. Any work since disqualification at other accredited institutions affect the cumulative grade-point average but not the CSUF grade point average.

Appointments are available for counseling regarding the possibilities of readmission or transfer to another institution at (714/278-2370).

# transfer credits

# TRANSFER CREDITS

Evaluation of Transfer Credits

Acceptance of Credit

Transfer of Credit From a Community
College

Credit by Examination

Credit by Advanced Placement

International Baccalaureate Program

Credit for Extension and
Correspondence Courses

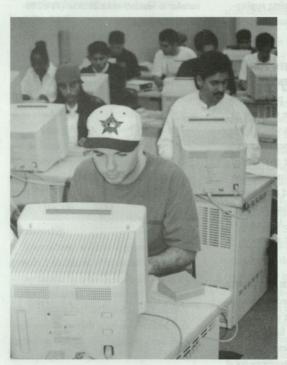
Credit for Noncollegiate Instruction

Credit for Prior Learning

College Level Examination Program

#### **EVALUATION OF TRANSFER CREDITS**

When a student is admitted, the Office of Admissions and Records will evaluate previous college work in relation to the requirements of Cal State Fullerton. All undergraduate degree candidates will be issued a credit summary during the first semester of attendance which serves as a basis for determining remaining requirements for the student's specific objectives. The admissions office will convert quarter units of credit transferred to the university to semester units by multiplying quarter-unit totals by two-thirds.



Once issued to a student, the evaluation remains valid as long as the student enrolls for the term specified, pursues the objective specified, and remains in continuous attendance. The student will not be held to additional graduation requirements unless such requirements become mandatory as a result of changes in the California Administrative Code or the California Education Code. If the student does not remain in continuous attendance and has not applied for and been granted a formal leave of absence, the evaluation issued upon readmission will specify the remaining requirements for the studentís objectives.

In view of the foregoing

regulations, the student should notify the Office of Admissions and Records immediately of a change in the objective specified in the evaluation. While the evaluation for a student remains valid, the student is held responsible for complying with all changes in regulations and procedures that may appear in subsequent catalogs.

#### **ACCEPTANCE OF CREDIT**

Credit for work completed at accredited institutions, other than course work identified by such institutions as remedial or in other ways as being nontransferable, will be accepted toward the satisfaction of baccalaureate degree and credential requirements at the university within limitations of residence requirements and community college transfer maximums.

#### TRANSFER OF CREDIT FROM A COMMUNITY COLLEGE

Upper-division credit is not allowed for courses taken in a community college. Credential credit is not allowed for courses in professional education taken in a community college. This does not invalidate credit for preprofessional courses taken at a community college, such as introduction to education, art or design, arithmetic, or music for classroom teachers. After a student has completed 70 units of college credit at a community college, no additional community college units may be accepted for unit credit.

#### **CREDIT BY EXAMINATION**

California State University, Fullerton grants credit to those students who pass examinations that have been approved for credit systemwide. These include the Advanced Placement Examinations and some CLEP examinations. Students may challenge courses by taking examinations developed at the campus. Credit shall be awarded to those who pass them successfully.

#### CREDIT BY ADVANCED PLACEMENT

Students who have successfully completed courses in the advanced placement program of the College Entrance
Examination Board (defined as receiving a score of 3, 4 or 5) shall be granted credit for each advanced placement course toward graduation, advanced placement in the university's sequence of courses and credit for curriculum requirements.

Cal State Fullerton grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of the College Board. Students who present scores of three or better will be granted semester units of college credit as listed below.

0		
Advanced	Equivalent Sen	nester
Placement	Course: CSUF U	nits
Course		
American History	History 180	3
Art History	Art 201A,B	3
Studio Art	Art 103 or 104	3-6
	Art 107A or 107B	
Biology	Biology 101	3
Chemistry	Chemistry 120A,B	62
Computer Science	Comp. Sci. 121	33
	Comp. Sci, 131	33
Economics	Econ. 201-202	6
English:		
Language and		
Composition	English 101, 201	68
Literature and		
Composition	English 101, 200	68
European History	History 110B	3
French	French 101, 102	104
German	German 101, 102	104
Government and		
Politics		
(Comparative)	lower-division	36
	elective	
Government and		
Politics		
(United States)	Poli Sci 101	37

Latin 101

Latin 4

3

Latin 101, 102	6
Math 150A	4
Math 150A,B	8
Physics 211, 212	65
Spanish 101, 102	104
	Math 150A Math 150A,B Physics 211, 212

<sup>1</sup>Consult the Department of Art for applicability of advanced placement examination credit.

<sup>2</sup>To complete the requirement for Chemistry 120A,B, the student must successfully complete four units of Chemistry 121L and 122L laboratory at Cal State Fullerton.

<sup>3</sup>Consult the Department of Computer Science for applicability of advanced placement examination credit.

<sup>4</sup>No Credit for literature.

<sup>5</sup>To complete the requirement for Physics 211 and 212, the student must successfully complete two units of Physics 211L and 212L laboratory at Cal State Fullerton.

<sup>6</sup>Consult the Department of Political Science for applicability of advanced placement examination credit. These units do not count toward the major.

<sup>7</sup>To meet the state requirement, you must take Political Science 300.

<sup>8</sup>Passing both exams grants a maximum of 9 units in English 101, 200, 201.

# INTERNATIONAL BACCALAUREATE PROGRAM

California State University, Fullerton recognizes the high scholastic quality of the International Baccalaureate Diploma Program. High school graduates who have participated in the program are encouraged to apply for admission, and those who have received the International Baccalaureate Diploma will be given special consideration for admission. Advanced placement and/or university credit for International Baccalaureate subject examinations may be awarded at the discretion of individual departments.

For example for a grade of 4 or better, the Departments of Foreign Language and Mathematics award credit in the following manner:

Foreign Languages. Subject to a successful oral interview with two CSUF instructors of the target languages, and upon their recommendation:

Higher Level Language B:

- Waiver of appropriate lower-division requirements
- 3 to 12 units of upper-division language credit

Subsidiary Level Language B:

- Waiver of appropriate lower-division requirements
- 0 to 6 upper-division language credit (if 0 upper division is awarded, a minimum of 6 units of 200-level credit is recommended.)

Mathematics

Higher Level:

 two semesters of Calculus (Math 150A and Math 150B)

Subsidiary Level:

 one semester of Calculus (Math 150A or equvalent).

# CREDIT FOR EXTENSION AND CORRESPONDENCE COURSES

The maximum amount of credit through correspondence and extension courses which may be allowed toward the bachelorís degree is 24 units, if otherwise applicable.

# CREDIT FOR NONCOLLEGIATE INSTRUCTION

Cal State Fullerton grants undergraduate degree credit for successful completion of non-collegiate instruction, either military or civilian, appropriate to the baccalaureate, that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. The number of units allowed are those recommended in the Guide to the Evaluation of Educational Experience in the Armed Services and the National Guide to Educational Credit for Training Programs. Students who have at least one year of active military service may be granted six or 12 units of undergraduate credit.

#### **CREDIT FOR PRIOR LEARNING**

California State University, Fullerton grants up to 30 units of undergraduate credit for learning, knowledge, or skills-based experience that has been documented and evaluated according to campus policy. Requests for Credit or Prior Learning will be evaluated individually.

# COLLEGE LEVEL EXAMINATION PROGRAM

The university shall accept three semester units of credit for each of the following College Level Examination Program (CLEP) examinations, subject to achievement of the scores indicated, provided the examination was not taken previously within one calendar year and that degree credit has not been granted for previous course work at the equivalent or at a more advanced level than for the examination in question.

Examination	Passing score			
Mathematics General Exam	50*			
College Algebra-Trigonometry	49			
Introductory Calculus and				
Analytic Geometry	48			
Statistics	49			
General Chemistry	48			

Fullerton may grant additional credit and advanced standing based upon CLEP examination results using as minimum standards:

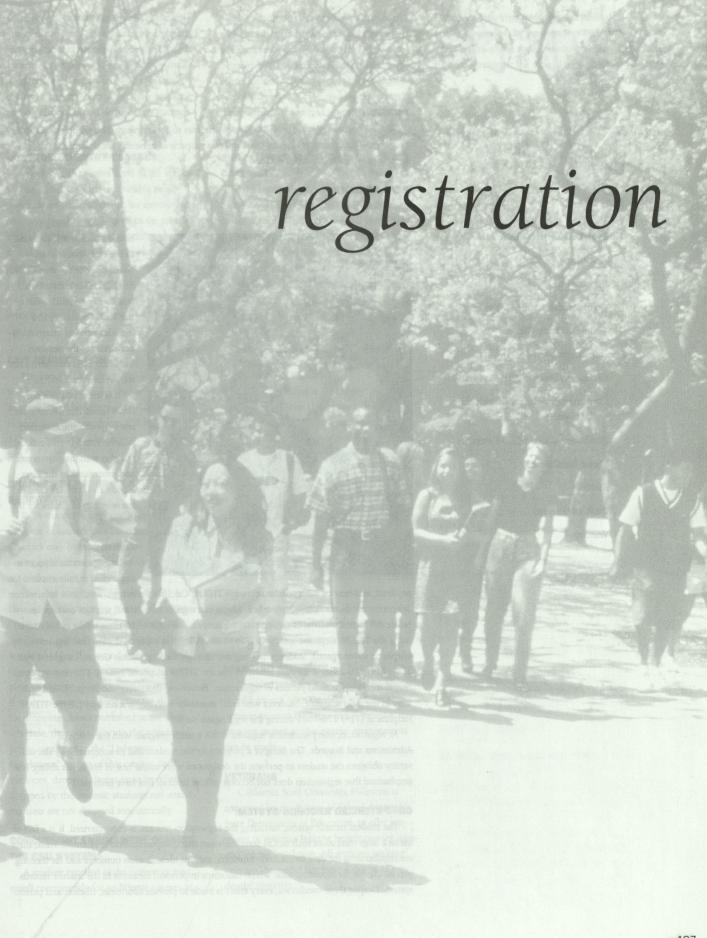
#### General Examinations

- That the student achieve a score at or above the 50th percentile, college sophomore norms.
- That no unit credit be granted for any test in the general examinations, but that up to six units of general education requirements be waived for each test completed except English with the appropriate score.

#### Subject Examinations

- 1. That the student submit a score at or above the 50th percentile of those in the norm group who earned a mark of C or better.
- That equivalency to Fullerton courses be determined by the appropriate academic department in conjunction with the Office of Admissions and Records.
- That university credit shall have not been previously earned in the courses in question.

In no case will credit so awarded count toward residence credit.



# registration

informa

#### **ORIENTATION**

Various opportunities are provided for new students to obtain information relating to academic programs, student services and activities, and other aspects of university life. Information about specific programs is published separately.

#### REGISTRATION

Class Schedule

#### **REGISTRATION INFORMATION**

Orientation

Registration

Computerized Records System

Controlled Entry Classes

Late Registration

Changes in Program After Registration

Concurrent Enrollment Outside the CSU System

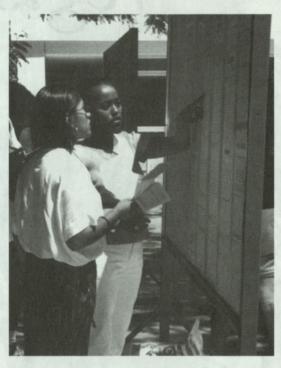
Enrollment at Other CSU Campuses

Visitor Enrollment

Auditors

Disabled Students

Veterans



A complete listing of courses offered will be found in the class schedule published prior to the start of each semester. This publication, which may be purchased in the Titan Bookstore, also includes detailed information pertaining to the semester including class enrollment and fee payment procedures.

It is important that students familiarize themselves not only with the academic policies stated in this catalog but also with the requirements and procedures in the class schedule as both are used in the selection of classes for the semester.

#### Registration

Registration involves two steps: class enrollment and fee

payment, and may be accomplished through TITAN, Cal State Fullerton's Touchtone Information Telecommunications Access Network. Students can register from home, work or on-campus before the semester starts, or through late registration during the first three weeks of instruction using the TITAN telephone system at (714) 278-7902. Most students should find registration by telephone advantageous. Students may register through the Registration Center, Langsdorf Hall 114, (714) 278-2386, if they are unable to use the TITAN telephone system. The center is open only during the specified periods of registration. Hours and dates vary and are published each term in the class schedule. Students who need assistance with registration may call the TITAN Helpline at (714) 278-7601 during the registration period.

At registration, every student is required to file a study program with the Office of Admissions and Records. The filing of a program by the student and its acceptance by the university obligates the student to perform the designated work to the best of his or her ability. It is emphasized that registration does not become official until all fees have been paid.

#### COMPUTERIZED RECORDS SYSTEM

The student records system, including the registration process, is computerized. It is a fact of life in a large institution such as Cal State Fullerton that computerization is essential. Thus, there are requirements for data forms, code numbers, student identification numbers and for meeting precise criteria for recording data, which introduce impersonal elements in the student records system. Despite these conditions, every effort is made to provide courteous, efficient and person-

alized service to students and the entire university community. To assist in providing this service, students are urged to be careful and accurate in preparing forms, especially the telephone/web registration worksheet and change of program forms. Accurate preparation of information will assure each student of error-free records.

#### **CONTROLLED ENTRY CLASSES**

In general, all courses listed in the semester class schedule shall be available to all matriculated students except for appropriate academic restrictions as stated in the schedule and the catalog. These restrictions, including special qualifications and other academic limitations, on class entry shall be published in the class schedule as appropriate footnotes to the designated class or class section and shall be consistent with the catalog.

#### LATE REGISTRATION

The last day to register late each semester will be announced in the class schedule. Late registrants will find themselves handicapped in arranging their programs and must pay a \$25 late registration fee in addition to regular fees.

# CHANGES IN PROGRAM AFTER REGISTRATION

Each student is responsible for the program of courses listed at registration. Changes may be made thereafter only by following procedures announced in the class schedule.

Students may drop classes and add classes to their programs of study during the first two weeks of instruction (the specific deadline is printed in the class schedule each semester). After the second week of instruction the university expects students to complete all courses in which they are enrolled. If students must withdraw after the deadline for dropping classes published in the class schedule, they are subject to the withdrawal policy contained in the "University Regulations" section of this catalog. In all instances, dropped classes must be officially dropped by the student; students not attending class are not dropped automatically.

# CONCURRENT ENROLLMENT OUTSIDE THE CSU SYSTEM

A student enrolled at the university may enroll concurrently for additional courses at

another institution outside the CSU system without advance written approval from the student's academic adviser or the Office of Admissions and Records. Students are reminded that the study load in the proposed combined program of study may not exceed the maximum number of units authorized at this university.

#### ENROLLMENT AT OTHER CSU CAMPUSES

Fullerton students may enroll at other campuses of The California State University either while concurrently enrolled at Cal State Fullerton or as visitors. There are certain eligibility requirements and enrollment conditions that must be met, including completion of at least one semester at Cal State Fullerton and being in good academic standing. Information and application forms may be obtained from the Office of Admissions and Records

#### **VISITOR ENROLLMENT**

Students enrolled at other campuses of The California State University may enroll at Cal State Fullerton while concurrently enrolled at their home campus or as visitors. Information about eligibility requirements, enrollment conditions and application forms are available from the Office of Admissions and Records at the home campus.

#### **AUDITORS**

A properly qualified student may enroll in classes as an auditor. The student must meet the regular university admission requirements and must pay the same fees as other students. See the description of Audit in the "University Regulations" section of this catalog under "Administrative Symbols."

#### DISABLED STUDENTS

Disabled students who require assistance should consult with Disabled Student Services prior to the announced semester registration period so that special arrangements can be made.

#### VETERANS

California State University, Fullerton is approved by the Bureau of School Approvals, State Department of Education, to offer programs to veterans seeking benefits under state and federal legislation. All students seeking veterans' benefits must have a degree or credential objective.

Applications for benefits should be filed well in advance of the semester in which the veteran plans to use these benefits to have the authorization at the time of registration.

# schedule of fees

#### **FEE INFORMATION**

Tuition is not charged to legal residents of California. Following are the fees and nonresident tuition in effect at the time of preparing this catalog.

Fees charged to students, including students auditing a class, are categorized as "mandatory," "tuition," "user" or "penalty." All fee amounts may change without advance notice. Students should refer to the current class schedule for fee amounts and for up-to-date information.

#### **FEE INFORMATION**

Application Fee

State University Fee

Nonresident and Foreign Visa Students

Mandatory Fees

Tuition Fees

User Fees

Penalty Fees

Alan Patee Scholarships

Credit Cards

ID Card

Waiver of Fees

Refund of Fees

Parking Fees

Typical Student Expenses

State University Fee

Associated Students Fee

Miscellaneous Course Fees

Average Annual Costs and Sources of Funds



#### APPLICATION FEE

#### (nonrefundable)

### **STATE UNIVERSITY FEE** (Per Semester)

#### Undergraduate

0 to 6 units	ATTAINE	.\$438
7 or more units.	91.X47.258	753

#### Graduate

MOUNT		THE PARTY OF THE P					
0	to	6 units				.5	6459
7	or	more u	nits	 			.792

#### NONRESIDENT AND FOREIGN VISA STUDENTS

#### MANDATORY FEES

Mandatory fees are required to apply to, enroll in, to attend, and to

graduate from Cal State Fullerton. They include, but are not limited to, the CSU Application Fee, costs assessed per semester such as the State University Fee and those associated with the operation of the student union, Associated Students programs and services, on-campus health services and specific courses.

#### **TUITION FEES**

Nonresident and foreign students pay a per unit tuition fee each semester, in addition to fees charged to all students. Tuition is not charged to legal residents of California.

#### **USER FEES**

User fees are required to receive non-instructional materials and services, to use facilities provided by the university, or to enroll in Intersession, Summer Session or Extended Education courses. They include, but are not limited to, parking fees, locker rentals, and administrative processing fees for transcripts, petitions, major and minor changes, certain enrollment verifications, diplomas and commencement-related expenses.

#### PENALTY FEES

Penalty fees are required to reimburse the university for additional costs resulting from dishonored payments, late submissions, misuse of property, or as a security or guarantee. They include, but are not limited to, late registration, failure to meet an administrative deadline, late installment payments, returned checks, and late library returns.

Children of deceased public law enforcement or fire suppression employees, who were California residents and who were killed in the course of law enforcement or fire suppression duties, are not charged fees or tuition of any kind at any California State University campus, according to the Alan Pattee Scholarship Act, California Education Code Section 68121. Students qualifying for these benefits are known as Alan Pattee scholars. For further information contact the Admissions Office, which determines eligibility.

### **CREDIT CARDS**

VISA and MasterCard bank credit cards may be used for payment of student fees when utilizing TITAN Express, either through the Interactive Voice Response Payment System or Webpay (on-line payment over the Internet).

### ID CARD

The campus ID card, the TitanCard, incorporates multiple applications into a single card. The TitanCard, bearing the user's photograph, signature and CSUF logo, is designed to be the student's permanent ID card with electronic validation occurring each semester of enrollment. The card permits easy access to university facilities and services including the Pollak Library, recreation activities, several Student Affairs offices, athletic ticket office, Titan Shops, dining and vending services, computer labs, student elections, etc. TitanTender is the debit account portion of the TitanCard, reducing the need to carry cash on campus. The card can also serve as a long distance calling card and ATM card.

### WAIVER OF FEES

Section 32320 of the California Education Code provides for the waiver of certain fees, other than nonresident tuition, for certain veterans' dependents. Those who meet one or more of the following criteria should present a certificate of eligibility obtained from the Division of Educational Assistance, California Department of Veterans Affairs, to the veterans' benefits coordinator in the Registrar's Office on or before the date of registration.

A. Children of veterans who have serviceconnected disabilities and whose annual income, not including governmental compensation for such service-connected disability, does not exceed \$5,000.

ALAN PATTEE SCHOLARSHIPS B. Children of veterans who died in action or as a result of a service-connected disability, where the annual income of such children, including the value of any support received from parents and the annual income of surviving parents, does not exceed \$5,000. There are no limitations on a person's age or the length of time as a California resident.

### **REFUND OF FEES**

Details concerning fees which may be refunded, the circumstances under which fees may be refunded, and the appropriate procedure to be followed in seeking refunds may be obtained by consulting Section 42201 (parking fees), 41913 (nonresident tuition), 42019 (housing charges) and 41802 (all other fees) of Title 5, California Code of Regulations. In all cases it is important to act quickly in applying for a refund.

Information concerning the policy and appropriate procedure to be followed in seeking a refund may be obtained from the Office of the Registrar or the Cashier's Office.

### **PARKING FEES**

Semester pass (nonreserved spaces): Regular and limited students (4-wheeled vehicle) . . . . . . . . . \$54.00 Regular and limited students (2-wheeled vehicle) . . . . . . . . . \$13.50 Coin operated gate per exit ..... \$1.50 Summer session (4-wheeled vehicle) . . \$36.00 Summer session (2-wheeled vehicle) . . \$9.00

### **TYPICAL STUDENT EXPENSES**

Typical school year budgets for California residents living at home or making other housing arrangements will vary widely. It is estimated that, including a \$4,700 yearly allowance for room and board, and \$400 for books and supplies, the total cost will approximate \$7,600 for an unmarried person. Nonresident students must also allow for nonresident tuition in addition to those fees listed above.

### STATE UNIVERSITY FEE

The state university fee provides financing for the following student services:

- 1. Social and Cultural Development Activities. Provides for the coordination of various student activities, student organizations, student government and cultural programs.
- Counseling. Includes the cost of counselors' salaries and clerical support, plus

- operating expenses and equipment.
- 3. Testing. Covers the cost of test officers, psychometrists, clerical support, operating expenses and equipment.
- 4. Placement. Provides career information to students and faculty for academic program planning and employment information to graduates and students.
- 5. Financial Aids Administration. Includes the cost of the counseling and business services provided in connection with the financial aid programs.
- 6. Health Services. Provides health services to students and covers the cost of salaries of medical officers and nurses and related clerical and technical personnel, as well as operating expenses and equipment.
- 7. Housing. Supports personnel who provide housing information and monitor housing services available to students.
- 8. Student Affairs Administration. Covers 50 percent of the cost of the office of the vice president for student affairs, which has responsibility for the overall administration of student services.

### **ASSOCIATED STUDENTS FEE**

The law governing The California State University provides that a student body fee may be established by student referendum with the approval of two-thirds of those students voting. The Associated Students fee was established at California State University, Fullerton by student referendum in December 1959. The same fee can be abolished by a similar two-thirds approval of students voting on a referendum called for by a petition signed by ten percent of the regularly enrolled students (Education Code, Section 89300). The level of the fee is set by the Chancellor who may approve a fee increase only following a referendum approved by a majority of the students voting. The Associated Students fee supports a variety of cultural and recreational programs, child care centers and special student support programs.

### **MISCELLANEOUS COURSE FEES**

A \$9.00 per semester "Consolidated Course Fee" includes all individual miscellaneous course fees other than those for travel and field trip expenses, event and facility admissions, sports equipment and musical instruments (including rentals). This fee will be charged as part of the "basic fees" due on or before the pertinent registration fee deadline. Course fees not covered by the Consolidated Course Fee are listed and described in the "Footnotes" sections that follow the class listings in the class schedule. Information as to the amount and payment of these fees will be provided before or on the first day of classes. For questions concerning the Consolidated Course Fee, please contact Student Financial Services at (714) 278-2495.

# AVERAGE ANNUAL COSTS AND SOURCES OF FUNDS PER FULL-TIME EQUIVALENT STUDENT

The 23 campuses and the Chancellor's Office of The California State University are financed primarily through funding provided by the taxpayers of California. The total state appropriation to the CSU for 1998/99 (not including capital outlay funding in the amount of \$221,547,000) is \$2,164,046,000. However, the total cost of education for CSU is \$2,918,347,067, which must provide support for a projected 268,320 full-time equivalent students (FTES). The number of full-time equivalent students is determined by dividing the total academic student load by 15 units per term (the figure used here to define a full-time student's academic load).

The total cost of education in the CSU is defined as the expenditures for current operations, including payments made to the students in the form of financial aid, and all fully reimbursed programs contained in state appropriations, but excluding capital outlay appropriations and lottery funds. The average cost of education is determined by dividing the total cost by the total FTES. The average cost is further differentiated into three categories: State Support (the state appropriation, excluding capital outlay), Student Fee Support, and Support from Other Sources (including federal funds).

Thus, excluding costs that relate to capital outlay, the average cost of education per FTE student is \$10,876. Of this amount, the average student fee support per FTE is \$2,263 (The State University Fee, application fee, and nonresident tuition are included in the average costs paid by the students; individual students may pay less or more than \$2,263, depending on whether they are parttime, full-time, resident, or nonresident students.)

### SOURCES OF FUNDS AND AVERAGE COSTS FOR 1998/99 CSU BUDGET

(Projected Enrollment: 268,320 FTE)

	Average	
	Cost Per	
Amount	FTE Student Percentage	
*Total Cost of Education \$2,918,347,067	\$10,876	
*State Appropriation \$2,164,046,000	8,064 74.26	
Student Fee Support\$592,496,191	2,208 20.3	
Support from other sources\$162,155,184	604 5.6	
Detail:		

Total State Support .....\$2,164,046,000 (Including Capital Outlay)

Total Support .....\$2,918,347,067

(Including State General Fund Appropriation, student fee support, and support from other sources)

\*Based on final campus budget submissions subsequent to the passage of the Budget Act. Totals may differ slightly from other CSU published amounts.

\*Includes supplemental appropriations of \$17.8 million for a 1 percent increase in employee compensation; \$11.5 million for teacher preparation activities; \$77 million in one-time funding for critical need areas (instructional equipment replacement, technology support, libraries, deferred maintenance, teacher recruitment, and distance learning); and \$4 million to expand successful CSU student outreach programs. Also includes \$60,861,000 that will be removed as the result of a reduction in retirement rate contributions.

# financial aid

#### INTRODUCTION

Financial Aid refers to a wide variety of programs designed to assist students in meeting the cost of attendance at California State University, Fullerton. These programs include gift aid in the form of scholarships and grants which do not require repayment or performance of work, student loans which require repayment over a period of time at a specified interest rate, and employment programs through Federal Work-Study. The Emergency Loan program also provides students with resources to meet unusual or unexpected emergencies through a short-term loan.

Students who have specific questions regarding financial aid or who would like further information should contact the Office of Financial Aid.

### **ELIGIBILITY REQUIREMENTS**

The following eligibility requirements apply to all financial aid programs except emergency loans and scholarships.

To be considered eligible for most student aid programs, the demonstration of financial need is one of the primary requirements. However, alternate forms of financial assistance such as scholarships, emergency loans, and parental loan programs should also be explored since many of these alternate sources of aid do not necessarily require the demonstration of financial need. Financial need is the difference between the reasonable and



approved costs incurred by a student at CSUF and all of the resources available to the student, including contributions from parents, student (and spouse, if applicable), and other aid the student may be eligible to receive. The university uses a nationally accepted formula developed by the federal government in determining the family contribution. In addition to demonstrating financial need, all applicants for federal student financial assistance must meet the following eligibility requirements:

- be a U.S. citizen or national or permanent resident of the U.S. Eligible students also include citizens of the Marshall Islands and permanent residents of the Trust Territories, as well as other eligible non-citizens who can document their status in the United States as other than for a temporary purpose.
- be admitted to or enrolled on at least a half-time basis in a program of study leading to a
  degree, certificate or recognized credential offered by the institution. (Graduate students pursuing prerequisites required to gain admission to a graduate program may be eligible only
  for Stafford loan and the annual limit will be reduced);
- maintain satisfactory academic progress in the course of study according to the standards and practices of the university;
- not be in default on any loan made from a student loan fund and not owe a refund on grants previously received for attendance at any college or university;
- complete a Free Application for Federal Student Aid (FAFSA) and submit all documentation requested by the Office of Financial Aid;

### **FINANCIAL AID OFFICE**

University Hall 146 (714) 278-3125

### **FINANCIAL AID**

Eligibility Requirements

Scholarships & Institutional Grants

State Grants

Federal Programs

Applications Periods

Rights and Responsibilities of Students Receiving Aid

Satisfactory Academic Progress Standards

Eligibility for Multiple Degrees

Refund Policy

Repayment Policy

6. be registered for the Draft with the Selective Service or certify that he/she is not required to register. The federal Military Selective Service Act (the "Act") requires most males residing in the United States to present themselves for registration with the Selective Service System within thirty days of their eighteenth birthday. Most males between the ages of 18 and 25 must be registered. Males born after December 31, 1959, may be required to submit a statement of compliance with the Act and regulations in order to receive any grant, loan, or work assistance under specified provisions of existing federal law. In California, students subject to the Act who fail to register are also ineligible to receive any need-based student grants funded by the state or a public postsecondary institution.

Selective Service registration forms are available at any U.S. Post Office, and many high schools have a staff member or teacher appointed as a Selective Service Registrar. Applicants for financial aid can also request that information provided on the Free Application for Federal Student Aid (FAFSA) be used to register them with the Selective Service. Information on the Selective Service System is available and the registration process may be initiated online at http://www.sss.gov.

- 7. have a Social Security number; and
- have a high school diploma or recognized equivalent.

# SCHOLARSHIPS & INSTITUTIONAL GRANTS

### Scholarships

Scholarships and awards should not be viewed as another form of financial aid, even though many scholarships do take financial need into consideration during the review process. They are given to honor outstanding achievement. Many scholarships are available to all students and are known as university scholarships. Other scholarships have special objectives and may be awarded to students pursuing selected majors, students with certain career goals, or to those living in certain geographic areas. In accordance with the laws of the State of California, CSUF is committed to providing equal opportunities to all students without regard to their race, ethnicity, gender, or national origin.

Most scholarship applications are due the last weekday in February. Generally, the recipients are selected during the spring semester and the funds are awarded the next academic year. Full details regarding scholarship requirements and application deadlines are in the Scholarship and Awards Bulletin, which is available the first week in December. The bulletins and applications can be picked up at the Office of Financial Aid and in all the Deans' Offices.

### Educational Opportunity Program Grant (EOPG)

The Educational Opportunity Program Grant of the California State University system is available to undergraduate students who are residents of California and who are officially enrolled in EOP (contact the EOP Office for program enrollment procedures). EOP grants range from \$200 to \$800 per year.

### State University Grant (SUG)

The State University Grant of the California State University system is available for graduate and undergraduate students who are residents of California. All applicants who file a FAFSA will be considered for this grant. The maximum SUG is the equivalent of the amount of the state university fee component of the registration fees. The award is for registration fees.

### STATE GRANTS

### Cal Grant A, B & T

The State of California, through the California Student Aid Commission, administers grant programs for undergraduates seeking a post secondary education. To qualify for Cal Grant A or B, a student must be a California resident attending an eligible school or college within the State, must be making satisfactory academic progress, and must not owe a refund on any State or Federal grant or have defaulted on a student loan. Applicants for Cal Grant funds are required to complete a Free Application for Federal Student Aid (FAFSA) no later than March 2 prior to the fall semester for which the grant will be used. First time applicants must verify their GPA by March 2. CAL Grant T applicants must be accepted into a credential program.

Cal Grants A and T are designed to assist low and middle income students with the cost of tuition and fees. Recipients are selected on the basis of financial need and grade point average. This grant is to be used for registration fees but may not cover full fees.

Cal Grant B is designed to provide very low income students with a living allowance. In addition, Cal Grant B recipients may also receive assistance with tuition and fee costs. First year students receiving Cal Grant B will generally receive a living allowance up to a maximum of \$1,410 for the academic year. During their 2nd, 3rd and 4th year of post-secondary education, Cal Grant B recipients will receive the living allowance in addition to tuition and fee assistance.

### **FEDERAL PROGRAMS**

### Federal Pell Grant

The Federal Pell Grant program is the largest of all federal student grant programs and is the "foundation" of all forms of student assistance. Pell Grants are available to undergraduates who have not already obtained a bachelor's degree. The amount of the grant is based on financial need and range from \$400 to \$3,500 for students enrolled full-time. Part-time undergraduates are also eligible. Students may apply by completing a Free Application for Federal Student Aid (FAFSA).

### Federal Supplemental Educational Opportunity Grant (FSEOG)

The Federal Supplemental Educational Opportunity Grant supplements other forms of financial assistance offered to an eligible student. Applicants must meet all other eligibility requirements. Although designed to meet the needs of undergraduate students with the greatest amount of need, FSEOG funds are provided to schools and colleges by the federal government and awards to students are made according to the schools awarding practices. Priority in awarding FSEOG funds must be given to Pell Grant recipients. Award amounts to CSUF students range from \$100 to \$600.

### Federal Perkins Loans

Federal Perkins Loans are low-interest loans (5 percent interest) available to undergraduate and graduate students. Based on their demonstrated financial need, students may borrow up to \$3,000 each academic year and up to a maximum borrowing limit of \$15,000 for completing an undergraduate degree. The combined borrowing limit for completion of undergraduate and graduate study is \$30,000. Students borrow through the Federal Perkins Loan program at their school or college and availability of funds is dependent on repayment of the school's previous borrowers and annual federal allocations to the program. Generally, loan amounts range from \$200 to \$1,800. Interest does not accrue on the loan and there is no

repayment while the student is enrolled at least half-time. Repayment begins nine months following graduation, withdrawal, or enrollment below half-time status.

### Federal Work-Study

The Federal Work-Study program provides students with employment opportunities both on and off campus. Eligibility for the program is determined by the school or college based on the student's demonstrated financial need. Students awarded Work-Study receive an allocation of funds to be earned through part-time employment with an approved employer. The hourly wage will depend on the type of job and placement assistance is provided by the school or college. Students can take advantage of this employment opportunity to work in areas related to their studies or to perform community service work to minimize their student loan borrowing. Undergraduates and graduate students are eligible to participate in the program.

### Federal Stafford Student Loan

The Stafford Student Loan is a long-term loan made to students by banks, savings and loan associations and credit unions. The loans are guaranteed by the State of California and insured by the federal government.

The federal government pays interest on the loan while the student is in school.

Six months following graduation, withdrawal or less than half-time enrollment, borrowers begin repayments.

Stafford Student Loan borrowers will be required to repay the loan at a variable interest rate set annually. The interest rate will be based on the 91-day T-bill rate plus 3.10% and capped at 9%.

First-year students are eligible to borrow up to \$2,625 annually, second-year students may borrow up to \$3,500, and other undergraduates will be limited to \$5,500 annually. Students enrolled in a program of study for less than one academic year will have their loan eligibility prorated based on the length of the program. The aggregate loan limit for an undergraduate will be \$23,000.

Graduate students will be eligible to borrow up to \$8,500 annually with an aggregate borrowing limit of \$65,500 including undergraduate loans.

### Federal Unsubsidized Stafford Student Loan

Students who do not demonstrate sufficient financial need to borrow under the regular Stafford Student Loan program may borrow under the unsubsidized Stafford Loan. Students may borrow within the loan limits and at the same interest rates as the regular Stafford loan program. With the exception of demonstrating financial need, borrowers must meet all eligibility criteria of the regular Stafford loan.

Borrowers will pay a combined origination and insurance premium of 4 percent which will be deducted from the loan checks.

Interest payments must begin immediately after the loan is disbursed or may be added to the principal balance. Regular repayment begins six months after the borrower graduates or is no longer enrolled at least half-time.

### Federal PLUS Parent Loans

The PLUS program is a loan designed to assist parents in meeting the educational costs of their dependent. The parent is the borrower and is responsible for repayment of the loan. The PLUS program is designed for families who generally do not qualify for other forms of financial assistance and who can meet the additional burden of loan payments.

Parents who do not have an adverse credit history may be eligible to borrow up to the total cost of the student's education, minus any other financial aid received by the student. The PLUS interest rate is variable, up to a maximum interest rate of 10 percent. Repayment of the loan begins within 60 days of the disbursement of the loan. Parents must repay both interest and principal and should check with their lender concerning deferment options.

### Federal Direct Subsidized and Unsubsidized Loans

Federal government loan programs providing long-term, low-interest loans to students. Interest is paid by the government for Direct Subsidized Loans. The federal maximum is \$2,625 per year for first-year students and unclassified graduates, \$3,500 for second-year students; \$5,500 per year for juniors, seniors, second B.A. candidates and credential candidates; and \$8,500 per year for master's degree candidates. You may not borrow more than \$23,000 during your undergraduate years, nor more than \$65,500 for both graduate and undergraduate years.

Direct Unsubsidized Loans are for students who do not qualify, in whole or in part, for the Direct Subsidized Loan. The terms for the unsubsidized loan are the same as the terms of the Direct Subsidized Loans except that the

family contribution is not a factor in awarding, and there is no interest subsidy. You can get a Direct Unsubsidized Loan regardless of your financial need. Students must pay the interest while in school or request that the accrued interest be added to the loan amount. Eligibility for a Direct Subsidized Loan must be determined before you will be allowed to borrow an unsubsidized loan.

### Direct Plus (Parent Loan)

A long-term loan program with an interest rate up to 9 percent is available through the federal government. This program is designed to assist parents in meeting the educational costs of their dependent. Parents are the borrower and are responsible for repayment of the loan. These loans may substitute for the expected family contribution but may not exceed the cost of education minus other aid. Parent borrower eligibility is based solely on ability to pay and a good credit record.

Generally repayment must begin 60 days after receipt of a check unless the parents qualify for a deferment.

### **APPLICATION PERIODS**

March 2 is the deadline for priority processing for the following academic year.

Consult with the Office of Financial Aid for more specific deadlines.

### **Emergency Loans**

Emergency loans are available from the first day of classes until 30 days before the end of the semester.

### Scholarships

Applications for scholarships are due in the Office of Financial Aid by late February. Students should contact the Office of Financial Aid for an application in mid-January.

### Bureau of Indian Affairs Grants

Consult with the BIA for exact dates. The application deadline is usually in mid-June.

### All Other Aid

Priority is given to FAFSA applications mailed between January 1 and March 2 for the next academic year.

### RIGHTS AND RESPONSIBILITIES OF STUDENTS RECEIVING AID

### Rights

All students are entitled to and are guaranteed fair and equitable treatment in the
awarding of financial aid. In addition, there
shall be no discrimination of any kind.

Appeals procedures exist for anyone who feels that a violation has occurred; consult with the director of financial aid for details.

All students have the right to receive full and open information about various financial aid programs and the status of their eligibility. In addition, they have the right to know the selection and review processes used in awarding financial aid.

All students have the right to know the costs of attending the institution, the refund policies in case of withdrawal from the university, the academic programs offered by the university, the faculty and physical facilities of the institution, and data regarding student retention at the university. The following information concerning student financial assistance may be obtained from the Director of Financial Aid, University Hall UH-146, phone: (714) 278-3125:

- 1. student financial assistance programs available to students who enroll at CSU, Fullerton;
- 2. the methods by which such assistance is distributed among recipients who enroll at CSU, Fullerton;
- 3. the means, including forms, by which application for student financial assistance is made and requirements for accurately preparing such application;
- 4. the rights and responsibilities of students receiving financial assistance; and
- 5. the standards the student must maintain to be considered to be making satisfactory progress for the purpose of establishing and maintaining eligibility for financial assistance

The following information concerning the cost of attending California State University, Fullerton, is available from the Director of Financial Aid, University Hall UH-146, phone: (714) 278-3125:

- 1. fees and tuition (where applicable);
- 2. estimated costs of books and supplies;
- 3. estimates of typical student room and board costs and typical commuting costs;
- 4. any additional costs of the program in which the student is enrolled or expresses specific interest.

### Responsibilities

All financial aid recipients agree to carry and complete a specific number of units each semester, report graduation or withdrawal

from the university and to notify the Office of Financial Aid of any changes in their financial or marital status.

Recipients of financial aid must use the funds only to meet education costs. Any other use of the funds is prohibited by law.

Students who are receiving financial aid must maintain satisfactory academic progress. See the section below for details.

### SATISFACTORY ACADEMIC **PROGRESS STANDARDS**

All students, including financial aid recipients, must maintain scholastic academic progress as outlined in the California State University, Fullerton catalog.

Federal and state regulations governing student financial aid programs require the university to ensure that each student who is receiving financial aid maintains sataisfactory academic progress (SAP) toward a degree objective. These regulations allow the institution to set the standards of SAP as long as "those standards are reasonable, are applied consistently and are at least as strict as the requirements for all students, and measure progress toward the degree for all periods of enrollment regardless of whether the student is receiving financial aid." As required, a quantitaive and qualitative measurement has been defined. (See below for complete information).

### Quantitative Measurement

At CSUF, all undergraduate programs are four-year programs but for purposes of defining the quantitative measuremnt for SAP, a maximum time frame of six academic years of work attempted is allowed. Students are expected to complete their educational objective, degree, or certificate according to the following schedule:

Required for Degree Max. Attempted Units Undergraduate: 124 units (B.A.) 186

Graduate:

30 or more depending 45

upon program

You may not continue to receive financial assistance at CSUF once you have attempted or enrolled in a maximum number of units. If you are classified as an undergraduate, the maximum is 186 units. If you are classified as a graduate or post-baccalaureate, the maximum is 45 units. The unit maximum includes all units attempted at CSUF, as well as all transferable units attempted at other

colleges/universities. If your program requires more than the average number of units, provide documentation to the Office of Financial Aid to request an exception to the standard.

A student who cannot complete his/her objective within the maximum attempted units outlined above according to his/her degree standing will not be eligible for any financial aid from any federal or state source.

### **Qualitative Measurement**

CSUF uses a 90 percent completion percentage (90 percent rule) applied to attempted units each term on an annual basis for its qualitative measurement to determine if SAP is being maintained.

A minimum number of units each semester is not imposed, although most financial aid programs require at least 6 units per semester (half-time status) to receive funds. Therefore, a student may decide each semester how many units to attempt. In deciding, factors such as employment, course difficulty, family responsibilities, and academic probation should be considered. There is a fourweek period each term to establish an enrollment status. On census date, the 20th day of instruction, units are "frozen," and it is on this basis that satisfactory academic progress is calculated.

### The 90 Percent Rule

The student's census attempted units ("frozen units") for the preceding fall and spring semesters are added together. Then grades are reviewed and the percentage of earned units are calculated based on the attempted units. The percentage is calculated on a maximum of 12 units per semester or 24 units per academic year. TO MAINTAIN UNRESTRICTED ELIGIBILITY FOR FINAN-CIAL AID, 90 PERCENT OF ATTEMPTED UNITS MUST BE EARNED.

### Determination of Units Completed

The following grades will be counted in determining units successfully completed: A, B, C, D, CR (credit).

SP (Satisfactory Progress) and RD (Report Delayed) will be temporarily considered as units completed provided these designations are replaced with an acceptable final grade within one calendar year from the beginning date of the semester. If the final SP grade is not posted within one year, the student must submit a written appeal to the Office of Financial Aid. If a Report is delayed beyond one year, the student must submit to the

Office of Financial Aid a statement from the faculty member explaining the cause for the extended delay.

The following grades will count as units attempted but will not count as units completed: F, NC (No Credit), W (Withdrawal), AU (Audit), I (Incomplete), U (Unofficial Withdrawal).

If a grade is changed after the official posting for a semester, it is the student's responsibility to bring verification of the change to the Office of Financial Aid.

Repeated Courses: A repeated course in which the student initially received a D or better will not count as units attempted or completed since an improved grade will only result in a grade change and not additional unit credit. A repeated course in which a student withdrew or received an unofficial withdrawal will count as units attempted and completed.

Remedial Courses will be considered as units completed for purposes of reviewing a student's satisfactory academic progress only when the university or department requires a student to take a remedial course(s) as part of his/her program whether or not the student receives unit credit towards graduation. A maximum of 30 units is allowed.

### Warning

If at least 70 percent (but less than 90 percent) of attempted units is earned, the student will be allowed to receive financial aid for one semester on "warning" status; if less than 70 percent of attempted units is earned, the student's eligibility is terminated until the student requalifies.

The student is still eligible to receive financial aid for one semester while on warning; however, the student must meet the following conditions to be taken off warning status:

- · attempt a minimum of 6 units;
- complete 100 percent of your attempted units (12 units is the maximum requirement);
- earn at least a 2.0 semester grade point average (GPA).

At the end of the warning semester, if the student has not met the conditions stated above, eligibility will be terminated until the student requalifies.

### Successful Completion Requirement

In order to maintain satisfactory academic progress, each student must have a cumulative

C average or an academic standing consistent with the institution's requirements for graduation by the end of the student's second academic year. This requirement is in addition to the requirement that a student maintain scholastic academic progress at the end of each semester as defined by California State University, Fullerton. Since California State University, Fullerton academic probation and disqualification standards permit a student to enroll on academic probation with a cumulative gradepoint average of 1.86 or better with fewer than 60 semester units, the equivalent of the end of the student's second academic year, CSUF meets the provisions of the Higher Education Amendments of 1986. As a result, a student who maintains a 1.86 or better cumulative grade-point-average at the end of the second academic year will be considered to be making satisfactory academic progress.

### Semester Grade Review

Even though California State University, Fullerton will measure satisfactory academic progress according to the number of units successfully completed at the end of each academic year, federal financial aid program regulations require each college and university to determine that a student is maintaining satisfactory academic progress each payment period and each time it certifies a Stafford Loan. To meet this requirement, a student will have been certified as having made satisfactory academic progress for payment purposes at the end of the fall semester if the student meets the "qualitative standards" as outlined above.

### Failure to Maintain Satisfactory Academic Progress

A student who fails to maintain the qualitative or quantitative measurement standards will be defined as having failed to maintain satisfactory academic progress and will be ineligible to receive any federal or state financial aid.

### Requalification of Financial Aid Eligibility

Students may requalify for a future semester by meeting the following conditions:

In a single semester:

- attempt a minimum of 6 units\*,
- complete 100 percent of your attempted units (12 units is the maximum requirement),
- earn at least a 2.0 semester grade point average (GPA).
- transferable courses at another school may be used to requalify, provided they

are accepted for unit credit toward your graduation at CSUF.

### **Appeal Process**

You have the right to appeal a financial aid eligibility termination or unit cap termination by presenting a written appeal with documentation of mitigating circumstances. Complete the SAP appeal form and indicate the following:

- (1) explain the circumstances which contributed to your failure to make SAP;
- (2) document the circumstances;
- (3) state the steps that you have taken to improve your future academic performance. Allow 2-3 weeks for the SAP Appeals Committee to evaluate and to provide a written response to your appeal.

### **ELIGIBILITY FOR MULTIPLE DEGREES**

Students will be eligible to receive financial aid towards the completion of their first bachelor's degree and towards their first graduate degree.

### **REFUND POLICY**

Information concerning CSU, Fullerton policies regarding any refund due to the federal Title IV student assistance programs as required by the regulations is available from the Director of Financial Aid, University Hall 146, phone (714) 278-3125.

As stated in the appropriate CSUF Class Schedule, a student may be entitled to a refund of fees if he/she withdraws from the university or drops units. If a student received financial aid, fee refunds will be credited partially or completely to various financial aid accounts.

Since financial aid is awarded to help meet educational costs, financial aid is considered to be used first for direct educational costs (fees). Therefore, if a student withdraws and is scheduled to receive a refund of fees, all or part of this refund will be used to reimburse the financial aid program(s) from which the student received funds.

Refund example: Student is living in an off-campus apartment and withdrew in the second week of the term. She received \$1928 in Federal and State Grants, \$934.50 of which was applied to registration fees. Since the student withdrew prior to the refund deadline, fees are refunded to the financial aid programs (after CSUF retains 5% for administrative fees).

Aid received:	\$ 1175.00	Federal Pell Grant
	\$ 753.00	SUG TO A STATE OF THE STATE OF
TOTAL:	\$ 1928.00	
Minus Fees Paid	- \$ 934.50	(Refunded to financial aid programs)
Non-CSUF charges	\$ 990.50	Subject to repayment
Minus Consumption Costs	- \$ 1076.00	(For 3 weeks apartment budget)
Repayment:	\$ 0.00	No repayment required
Refund:	\$ 934.50	To financial aid program

### REPAYMENT POLICY

Financial aid funds are made available to help students meet their educational expenses. Therefore, if a student receives financial aid funds and subsequently withdraws from all classes, he or she may be required to repay a portion of the funds received. The amount to be repaid is calculated on the date of withdrawal, the "consumption costs" for the weeks of attendance and the amount and types of financial aid received. The following examples illustrate repayment calculations.

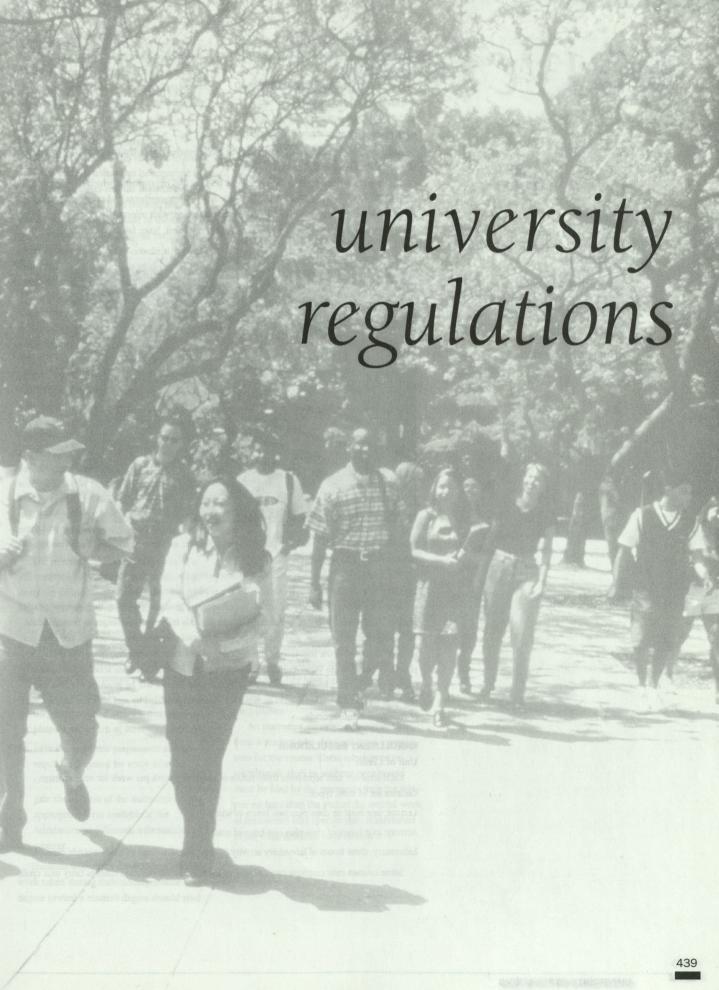
**Example 1:** Student is living with parents and withdrew in the second week of the term. The student received \$2253.00 in Federal and State Grants, \$934.50 of which was applied to registration fees. Since the student withdrew prior to the refund deadline, fees are refunded to the financial aid programs (after CSUF retains 5 percent for administrative fees).

\$ 1500.00	Federal Pell Grant
\$ 753.00	SUG
\$ 2253.00	
- \$ 934.50	(Refunded to financial aid programs)
\$ 1318.50	Subject to repayment
- \$ 370.00	(for 2 weeks at home budget)
\$ 948.00	Student must repay this amount
	\$ 753.00 \$ 2253.00 - \$ 934.50 \$ 1318.50 - \$ 370.00

**Example 2:** Student is living with parents and withdrew in seventh week of the term. The student received \$ 3247.00 in Federal and State Grants, \$934.50 of which was applied to registration fees. Since the student withdrew after the refund deadline, all fees are retained by CSUF.

Aid received:	\$ 1350.00	Federal Pell Grant
	\$ 792.00	Cal Grant B Fees
	\$ 705.00	Cal grant B Stipend
	\$ 400.00	EOP Grant
TOTAL:	\$ 3247.00	
Minus Fees Paid:	- \$ 934.50	(Retained by CSUF for fees)
Non-CSUF charges	\$ 2312.50	Subject to repayment
Minus Consumption Costs	-\$ 1294.00	(for 7 weeks at home budget)
Repayment:	\$ 1018.50	Student must repay this amount

**IMPORTANT NOTE:** Federal Stafford Loans and Parent Loans are not subject to repayment requirements according to formulas shown above. However, we will notify the lender as soon as a borrower drops below half-time status. These loans must be repaid according to the provisions of the promissory note.



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### REGULATIONS

**Enrollment Regulations** 

Class Attendance

Initial Class Meeting

Instructor-Initiated Drops

Each student is responsible for meeting the requirements printed in the university catalog and all published regulations of the university.

The university establishes certain academic policies and requirements which must be met before a degree is granted. These include major and unit requirements and prerequisites. While advisers, directors, deans and faculty will provide a student with information and advice, responsibility for meeting these requirements rests with the student. Since failure to satisfy these



requirements may result in the degree being withheld, important for each student to become thoroughlyacquainted with all regulations. The catalog and the

semester class schedule, available in the Titan Bookstore, are the best sources of information on current policy and regulations.

The student also has the responsibility for securing the consent of the instructor before enrolling in a course with prerequisites that the student has not completed.

To ensure receipt of timely information and accurate grade reports from the university, each student must keep the Office of Admissions and Records informed of changes in personal data, including changes in name, address and program of study. Enrollment corrections and changes must be reported to the registrar by the 20th day of classes each semester, using TITAN (telephone or World Wide Web) and/or Change of Program forms. (See class schedule for details). During the third and fourth week, a \$20 administrative late fee will be required to make such changes. Other corrections should be reported on forms provided by and returned to the Office of Admissions and Records.

### **ENROLLMENT REGULATIONS**

Unit of Credit

Each semester unit represents three hours of university work per week for one semester. Courses are of three types:

Lecture: one hour in class plus two hours of study.

Activity: two hours of class plus one hour of study.

Laboratory: three hours of laboratory activity in class plus one hour of study outside class.

Some courses may combine two or more of these types. All required courses carry unit credit.

### Class Levels

Undergraduate students who have completed 0-29 semester units of work are classified as freshmen, 30-59 semester units as sophomores, 60-89 semester units as juniors, and 90 or more as seniors.

### Maximum Number of Units

Undergraduate students' requests to enroll for more than 19 units must be approved by the student's adviser and the department chair of the major. If such requests are denied, appeals may be made to the appropriate school dean. (Undeclared majors must receive the approval of the coordinator of undergraduate studies.) The minimum full-time program is 12 units.

A student whose academic record justifies a study list in excess of the normal may request to be allowed to enroll for extra units. Request forms may be obtained from the Office of Admissions and Records. In general, only students with superior academic records are allowed to enroll for more than the maximum. In addition, the need to enroll for the extra study must be established. Factors such as time spent in employment or commuting, the nature of the academic program, extracurricular activities and the student's health should be considered in planning a study program. Students who are employed or have outside responsibilities are advised to reduce their programs of study.

The minimum and maximum units of a full-time program of study for graduate students are defined in the "Graduate Regulations" section of this catalog.

### **Graduate Level Courses**

Graduate level (500) courses are organized for graduate students. Undergraduate students may be permitted to enroll in a graduate level course if:

- they have reached senior status (completed a minimum of 90 semester units)
- have the academic preparation and prerequisites required for entry into the course
- gain the consent of the instructor on the appropriate form available at the Admissions and Records information counter.

Students wishing to use 500-level coursework taken during their undergraduate degree toward a master's degree should read the section on postgraduate credit in the "Graduate Regulations" section of this catalog.

### CLASS ATTENDANCE

While class attendance is not recorded officially by the university, regular attendance in class is often essential to success in a course. The policy on class attendance is within the discretion of the individual faculty member and shall be announced by the faculty member at the first class meeting of the semester.

### **INITIAL CLASS MEETING**

It is especially important that students attend the first meeting of a class. Students absent from the first meeting must notify the instructor or departmental office of the absence no later than 24 hours after the class meeting in order to preserve their places in the class. Instructors may deny admission to the class to absentees who fail to contact the instructor or office, in order to admit persons on waiting lists.

### **INSTRUCTOR-INITIATED DROPS**

A student who registers for a class and whose name appears on the first-day-of-class list should attend all class meetings in the first week. If a student decides not to continue enrollment in a class, either before or after instruction begins, it is the student's responsibility to follow appropriate procedures for dropping the class; however, if a student is absent without notifying the instructor or departmental office within 24 hours after any meeting missed during the first week, the student may be dropped administratively by the instructor. Students should not assume that this will be done for them and should take the responsibility to ensure that they have been dropped by following the appropriate procedures for dropping classes.

An instructor may also administratively drop a student who does not meet prerequisites for the course. These administrative withdrawals shall be without penalty and must be filed by the instructor with the registrar no later than the end of the second week of instruction (the specific date is published in the class schedule each semester).

# grading policies

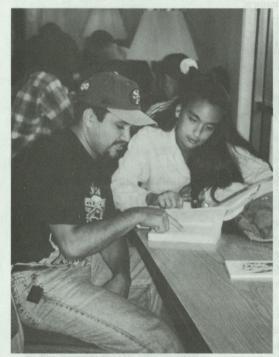
### **GRADING SYSTEM**

Every student of the university will have all course work evaluated and reported by the faculty using letter grades or administrative symbols.

The university uses a combination of traditional and nontraditional grading options as follows:

### Traditional (Letter Grade Option)

Letter grades, defined as:



- A outstanding performance
- B above average performance
- C- average performance
- D below average performance, though passing
- F failure

# Nontraditional (Credit/No Credit Option)

CR (Credit) for satisfactory (equivalent to C or better in undergraduate courses; B or better in graduate courses) and NC (No Credit) for less than satisfactory work.

When, because of circumstances, a student does not complete a particular course, or withdraws, certain administrative symbols may be assigned by the faculty.

Grades and symbols are listed in a chart on the following page together with grade-

point values. The chart also illustrates the academic bookkeeping involved for all grades and symbols used.

### Selection of Grading Option

Selection of a grading option, with certain exceptions, is the responsibility of the student. Graduate students must use the letter grade option for courses that are on study plans leading to master's degrees. Undergraduates must use the letter grade option for major, minor and general education requirements.

Exceptions are those courses designated by the faculty to be graded solely on either a letter grade only or credit/no credit basis.

These courses will be so designated in the class schedule (and shall not be changed by the faculty after publication of the class schedule) for each semester and may be included in major, core or special program requirements.

Students shall inform the registrar up to the end of the fourth week of classes regarding the selection of grading options in designated courses. If a student does not do so, the letter grade option will be used. A \$20 administrative late fee will be charged during the third and fourth weeks of classes to change grading options in a course. Students are not permitted to change grading options after the university census date except, by petition, changes from credit/no credit to letter grade which will bring the student into compliance with major, minor, and general education requirements.

**GRADING POLICIES** 

Grading System

Student Records

Administrative Symbols

The faculty shall grade all students using the traditional A, B, C, D or F grades except in Credit/No Credit (only) courses, and the registrar shall make the necessary changes from A, B, C, D or F, converting A, B, C to Credit, and D and F to No Credit in undergraduate courses and A, B to Credit, and C, D and F to No Credit in graduate courses. In those courses offered only on a Credit/No Credit basis, the instructor shall assign grades of CR or NC or appropriate administrative symbols.

### Nontraditional Grade Option

A nontraditional grading option is available to undergraduate students, nonobjective graduate students and to classified graduate students for courses not included in the approved study plan. Any student attempting a course using the nontraditional grading option must meet the prerequisites for that course. Each student shall be permitted to select courses in subjects outside of the major, minor and general education requirements for enrollment on a Credit/No Credit basis. The phrase "major requirements" shall be taken to include core plus concentration (or option) requirements in departments using such terms, and professional course requirements in teacher education curricula. A student in any one term may take one course under the Credit/No Credit option. In addition, he or she may enroll in a required course offered only under Credit/No Credit; however, a maximum of 36 units of Credit/No Credit courses, including those transferred from other institutions, may be counted toward the baccalaureate.

Under the Credit/No Credit option, the term "Credit" signifies that the student's academic performance was such that he or she was awarded full credit in undergraduate courses with a quality level of achievement equivalent to a C grade or better, unless the catalog course description states otherwise. In all graduate level and professional education courses Credit signifies academic performance equivalent to B or A grades. No Credit signifies that the student attempted the course but that the performance did not warrant credit toward the objective.

Ordinarily, a student shall be limited to one nonmajor course per term using this

option, exclusive of courses offered only on a Credit/No Credit basis.

When an undergraduate student changes his or her major field of study to one where he or she has completed courses with CR grades, such lower division courses shall be included in major requirements. Upper division courses may be included at the option of the department upon petition by the student.

ADVISORY CAUTION: Undergraduate students who plan to pursue graduate or professional studies later are advised to be selective in opting for courses on a credit/no credit basis. As a general rule (advisory only), course work that is preparatory or prerequisite to advanced specialized study should be completed and evaluated on a letter grade basis and not Credit/No Credit.

Grade				
Grade or Symbol	GPA	Units	Point	Full
Traditional	Units	Earned	Value	Credit
A	Vec	Yes	4	Yes
В	Yes	Yes	3	Yes
C	Yes	Yes	2	Yes
D	Voc	Yes	oda Intera	No
F	37	No	0	No
Nontraditional				
CR	*	Yes	None	Yes
NC	*//	No	None	No
Administrative Symbols				
I (Incomplete Authorized)	†	No		
U (Unauthorized Incomplete)	Yes	No	0	No
W (Withdrawal)	No	No	No	None
WF (Withdrawal) ††	Yes	No	0	No
AU (Audit)	No	No	None	No
SP (Satisfactory Progress)	No	No	None	No
RD (Report Delayed)	No	No	None	No
Totals	Used	Counted	Used	
	In	In	Toward	
	GPA	Objective	GPA	

\*Credit/No Credit course units are not included in GPA computations.

†If not completed within one semester the I will be changed to an F (or NC).

††Effective fall 1991, this symbol is no longer assigned.

### **ADMINISTRATIVE SYMBOLS**

### Incomplete Authorized (I)

The symbol I signifies that a portion of required course work has not been completed and evaluated in the prescribed time period owing to unforeseen but fully justified reasons and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the instructor and to reach agreement on the means by which the remaining course requirements will be satisfied. A final grade is assigned when the work agreed upon has been completed and evaluated.

An Incomplete must be made up during the semester immediately following the end

of the term in which it was assigned. This limitation prevails whether or not the student maintains continuous enrollment. Failure to complete the assigned work will result in an Incomplete being changed to an F or an NC.

A grade of Incomplete may be given only when, in the opinion of the instructor, a student cannot complete a course during the semester of enrollment for reasons beyond the student's control.

Such reasons are assumed to include: illness of the student or of members of the student's immediate family, extraordinary financial problems, loss of outside position and other exigencies. In assigning a grade of I, the instructor shall file with the depart-

ment for future reference and student access a Statement of Requirements for Completion of Course Work. The requirements shall not include retaking the course. The instructor will also designate a time limit (up to one semester) for completing requirements. Upon request, a copy of the document will be furnished to the student. The student should review this statement at the earliest opportunity.

The statement of requirements will include an indication of the quality of the student's work to date. This not only provides an interim evaluation for the student but assists the department chair in assigning a final grade in those instances where the instructor is no longer available.

When the specific requirements are completed, the instructor will report a change of grade. The responsibility for changing the incomplete grade rests with the instructor.

### Withdrawal (W)

Students may withdraw from class during the first two weeks of instruction without record of enrollment. After that time, students should complete all courses in which they are enrolled.

The university authorizes withdrawal after the first two weeks of instruction and prior to the last three weeks of instruction only with the approval of the instructor and the department chair (and, in some cases, the school associate dean). All requests for permission to withdraw during this period and all approvals shall be made in writing on the Withdrawal Request form and the Change of Program form and shall be filed at the Office of Admissions and Records by students or their proxies.

Authorization to withdraw after the second week of instruction shall be granted for only the most serious reasons i.e. a physical, medical, emotional or other condition which has the effect of limiting the student's full participation in the class. Such reasons must be documented by the student. Poor academic performance is not evidence of a serious reason for withdrawal. Signatures of the instructor and department chair are required for each course. In some departments, the signature of the associate dean is also required. Withdrawal from a class is signified by a grade of "W." Such grades are not included in grade point average calculations.

Students may not withdraw during the final three weeks of instruction except in cases, appropriately documented, such as

accident or serious illness, where the assignment of an Incomplete is not practicable. Ordinarily, withdrawals of this nature will involve withdrawal from all classes except that Credit or Incomplete Authorized (I) may be assigned for courses in which students have completed sufficient work to permit an evaluation to be made. Requests for permission to withdraw from all classes under these circumstances, with authorizations as described above, shall be submitted with Change of Program forms by the students (or their proxies) to the registrar.

### Unauthorized Incomplete (U)

The symbol U indicates that an enrolled student did not withdraw from the course but failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade-point average computations, this symbol is equivalent to an E

Students may petition for retroactive with-drawal from individual courses or from an entire semester, provided theay can document both the serious and compelling reasons or circumstances that required the withdrawal and the date of such withdrawal. Such a petition must be filed within 30 days after the first class day of the following semester.

ADVISORY NOTE: Students who unofficially withdraw and who are receiving financial aid or benefits which are dependent on completion of specified course units are advised that they may have such benefits suspended and may be subject to repayment of allowances received after date of unofficial withdrawal.

### Audit (AU)

The symbol AU is used by the registrar in those instances where a student has enrolled in a course either for information or other purposes not related to the student's formal academic objective. Enrollment as an auditor is subject to the permission of the instructor, provided that enrollment in any course as an auditor shall be permitted only after students otherwise eligible to enroll in the course on a credit basis have had an opportunity to do so. Auditors are subject to the same fees as credit students and regular class attendance is expected. An auditor may not change to

credit status and a student who is enrolled for credit may not change to audit after the fourth week of instruction. An auditor is not permitted to take examinations in the course; therefore, there is no basis for evaluation nor a formal grade report.

### Satisfactory Progress (SP)

The SP symbol is used in connection with thesis, project or similar courses that extend beyond one academic term. It indicates that work is in progress, and has been evaluated and found to be satisfactory to date, but that assignment of a final grade must await completion of additional course work. Cumulative enrollment in units attempted may not exceed the total number applicable to the student's educational objective. Work is to be completed within a stipulated period which may not exceed one year except for graduate degree theses or projects for which the time may be longer, but may not exceed the overall limit for completion of all master's degree requirements.

### Report Delayed (RD)

The RD symbol is used where a delay in the reporting of a final grade is due to circumstances beyond the control of the student. The symbol is assigned by the registrar and will be replaced as soon as possible. An RD shall not be included in calculation of a grade-point average.

### STUDENT RECORDS

### Grade Reports to Students

A report of the final grades assigned in classes is sent to each student at the end of each semester. Many students also leave self-addressed post cards for instructors of specific courses to send them earlier reports. Grades are also available at the end of each term by telephone and through several touch-screen kiosks located on the campus.

### Class Grade-Point Averages

Beginning with the fall semester 1978, information is included on student grade reports and permanent academic records that is intended to depict the level of achievement of students in relation to other students in a particular class. The class size and gradepoint average information is displayed for each graded course. The first set of figures indicates the number of students officially completing the course and the second set is the class grade-point average. In making the computations, marks of W, I, CR, NC, and SP

are excluded. This same information is displayed for summer session and intersession classes, but not for extension classes sponsored by the Office of Extended Education.

#### Examinations

Final examinations, if required by the instructor, will be given at times scheduled by the university. Once established, the final examination schedule may not be changed unless approved by the dean of the school. No makeup final examination will be given except for reason of illness or other verified emergencies.

### Credit by Examination

Students may be granted credit toward the baccalaureate and to meet curriculum requirements in certain designated courses by the satisfactory completion of challenge examinations in the courses. The examinations are to be comprehensive and administered by the sponsoring departments. Well in advance of the semester in which a challenge examination is to be administered, the student, using the appropriate university form, will secure written approval of his or her major advisor and the chair of the department in which the course is offered. In general, prior work or academic experience will be required.

Courses to be offered as challenge examinations will be determined by the academic departments. Matriculated students may either enroll in these courses during registration or add them during the first three weeks of the semester. The examination must be administered not later than the end of the third week of instruction.

Upon successful completion of the examination, the instructor will report the grade of CR. Students who fail the challenge examination may elect to continue the course for credit or may officially withdraw from the course through the normal class withdrawal procedure. The challenge examination for any course may be administered only once.

A maximum of 30 credits can be earned by challenge examination, including those earned by advanced placement. Credit by examination may not be used to fulfill the minimum residence requirements.

### **Grade-Point Averages**

The numerical grade-point values in the grading system chart are intended to give an exact determination of a student's scholastic standing. To compute the grade-point average

for course work at Fullerton, the grade-point value of each grade, with the exception noted in the "Repetition of Courses" section, is multiplied first by the unit value of each course to obtain a total of all grade points earned. The total is then divided by the total units attempted in all courses in which grades of A, B, C, D, F, U and WF were received. The resulting figure is the grade-point average.

### Repetition of Courses

Undergraduate students may repeat courses at California State University, Fullerton for which D or failing grades were earned either at Cal State Fullerton or at other institutions; in repeating such courses, the traditional grading system shall be used. In computing the grade-point average of a student who repeats courses in which he or she received D or failing grades, only the most recently earned grades and grade points shall be used for the first 16 units repeated. Nevertheless, the original grade on the academic record shall not be changed or eradicated. Persons who plan to seek professional school admission, e.g., law, medicine should note that all grades may be calculated for admission regardless of local application of the CSUF repetition of course policy.

In exercising this option, an undergraduate student must repeat the course at Cal State Fullerton and may request application of this policy when a course has been repeated. This should be accomplished using the appropriate form, immediately following the term in which the course has been completed, so that the student's grade-point average can be revised. In the absence of student requests, courses successfully repeated are routinely credited by the Office of Admissions and Records during disqualification cycles and degree requirement reviews at the time of graduation.

This policy may also be applied to courses in which U or WF grades were assigned, as a means of eliminating such marks from gradepoint average computations.

In the case of any repetition beyond the 16-unit limit or in courses for which a C or better grade was awarded, both grades are considered in computing grade-point averages. Successful repetition of a course originally passed carries no additional unit credit toward a degree or credential except for certain courses such as independent study, practicum, or other courses specified in this catalog as "may be repeated for credit."

Students transferring from other colleges where courses were taken and repeated may be eligible for consideration under this policy. In general, the policy of the college where the course was repeated shall be followed; however, units for the courses taken and repeated at the transfer institution are included in the 16-unit limitation.

Subject to the following restrictions, if a graduate or post-baccalaureate student (excluding students with a second bachelor's degree objective) repeats courses for which a grade of U (unauthorized incomplete) was received, only the most recently earned grade(s) and grade points shall be used in computing the grade point average; however, the original U grade(s) will remain on the permanent record. This policy may be applied only to grades earned during the first semester in which U grades are received. Repeated courses must be taken at Cal State Fullerton using the traditional grading system. Students who have successfully repeated U-graded courses must notify the Admissions and Records office using the appropriate form if they wish adjustment to their grade-point averages.

### Grade Changes

The university recognizes the long-standing prerogatives of faculty to set standards of performance and to apply them to individual students. The university will seek to correct injustices to students but at the same time believes that the instructor's judgment at the time the original grade is assigned is better than a later reconsideration of an individual case. Equity to all students is of fundamental concern. The following policies apply to changes of grades except for changes of Incomplete Authorized and Unauthorized Incomplete symbols.

- In general, all course grades are final when filed by the instructor in the endof-term course grade report. Each student is notified by mail of the grades earned during the term, and these grades become a part of the official record.
- 2. A change of grade may occur only in cases of clerical error, administrative error, or where the instructor reevaluates the original course assignments of a student and discovers an error in the original evaluation. A clerical error is an error made by the instructor or an assistant in calculating or recording the grade.

A change of grade shall not occur as a consequence of the acceptance of additional work or reexamination beyond the specified course requirements.

- 3. A request for a change of grade shall be initiated by the student affected and shall be directed to the instructor within 60 calendar days of the first day of classes of the regular semester following the award of the original grade. If the instructor determines that there is a valid basis for the change, a Change of Grade form shall be used to notify the Office of Admissions and Records. These forms are available in department offices and are not to be handled by students. If the instructor determines that there is not a valid basis for the change, and denies the student's request, the instructor's decision is final. The student may file a petition with the Academic Appeals Board on the basis of capricious or prejudicial treatment by the instructor.
- 4. The Change of Grade form completed and signed by the instructor, noting the basis for the change, shall not be accepted by the registrar unless approved separately by the department chair and school dean.
- 5. If a request for change of grade is initiated after 60 calendar days into the following semester, it will be approved only in extraordinary circumstances. An explanation of such circumstances must accompany the request and must be approved separately by the instructor, department chair, and the dean before acceptance by the registrar.

### **Academic Dishonesty**

Academic dishonesty includes such things as cheating, inventing false information or citations, plagiarism, and helping someone else commit an act of academic dishonesty. It usually involves an attempt by a student to show possession of a level of knowledge or skill which he or she does not possess.

Cheating is defined as the act of obtaining or attempting to obtain credit for work by the use of any dishonest, deceptive, fraudulent or unauthorized means. Examples of cheating include, but are not limited to: using notes or aids or the help of other students on tests and examinations in ways other than those expressly permitted by the instructor, plagiarism as defined below, tampering with the grading procedures, and collaborating with

others on any assignment where such collaboration is expressly forbidden by an instructor.

Plagiarism is defined as the act of taking the specific substance of another and offering it as one's own without giving credit to the source. When sources are used, acknowledgment of the original author or source must be made following standard scholarly practice.

The initial responsibility for detecting and dealing with academic dishonesty lies with the instructor concerned. An instructor who believes that an act of academic dishonesty has occurred is obligated to discuss the matter with the student involved. The instructor should possess reasonable evidence, such as documents or personal observation. However, if circumstances prevent consultation with the student, the instructor may take whatever action, subject to student appeal, the instructor deems appropriate.

An instructor who is convinced by the evidence that a student is guilty of academic dishonesty shall:

- 1. Assign an appropriate academic penalty. This may range from an oral reprimand to an F in the course. To the extent that the faculty member considers the academic dishonesty to manifest the student's lack of scholarship and to reflect on the student's academic performance and academic integrity in a course, the student's grade should be adversely affected. Suggested guidelines for appropriate actions are an oral reprimand in cases where there is reasonable doubt that the student knew that his or her action constituted academic dishonesty; an F on the particular paper, project or examination where the act of dishonesty was unpremeditated, or where there were significant mitigating circumstances, or an F in the course where the dishonesty was premeditated or planned.
- Report to the student involved, to the department chair, and to the vice president for student affairs the alleged incident of academic dishonesty, including relevant documentation, and make recommendations for action that he or she deems appropriate.

The vice president for student affairs shall maintain an academic dishonesty file of all cases of academic dishonesty with the appropriate documentation. Students shall be informed when their names are inserted into the file and provided with copies of any appeals or disciplinary procedures in which they may become involved. The vice president for student affairs or his or her designees may initiate disciplinary proceedings under Title 5, California Code of Regulations, Section 41301, and Chancellor's Executive Order 148; when two or more incidents involving the same student occur, he or she shall do so.

Opportunities for appeal regarding sanctions resulting from disciplinary proceedings are provided by Executive Order 148.

A student may appeal any action taken on a charge of academic dishonesty under the University Policy Statement 300.030, "Academic Appeals." If the Academic Appeals Board decides that a student is innocent of academic dishonesty, then no entry shall be made in the academic dishonesty file.

If the Academic Appeals Board decides either that a student is innocent of academic dishonesty, or that a faculty member has acted arbitrarily or capriciously towards a student, it shall instruct the faculty member to meet with his or her department chair and, if appropriate, the dean of the school for the purpose of reassessing the student's performance. If the faculty member refuses to do so, or if the Board's recommendation does not specify a particular grade as the one to be assigned, the matter shall be referred to an ad hoc committee, to be established by the department, which shall have ultimate authority to act in the case.

### Academic Renewal

In 1974, the Board of Trustees of the California State University adopted an academic renewal policy that became part of Executive Order No. 213 issued by the Chancellor's Office. The Board of Trustees made it clear at the time Executive Order 213 was approved that the purpose of this policy was not to raise grade point averages, but to ensure that able students were not required to stay on after completion of all course requirements simply to remove a deficiency.

The university may disregard up to two semesters or three quarters of previous undergraduate course work taken at any college or university from all considerations associated with requirements for the baccalaureate when a student meets the mandatory condition that "there is every evidence that the student would find it necessary to complete additional units and enroll for one or more additional terms in order to qualify

for the baccalaureate if the request were not approved."

Final determination that one or more terms shall be disregarded in the determination of eligibility for graduation shall be based upon a careful review of evidence by the Review Committee for Academic Renewal and shall be made only when the mandatory condition stated above is met and when:

- Five years have elapsed since the most recent work to be disregarded was completed;
- The student has requested the action formally and has presented evidence that
  work completed in the terms under consideration is substandard and not representative of present scholastic ability and
  level of performance;
- The level of performance represented by the terms under consideration was due to extenuating circumstances;
- 4. The student has completed at Cal State Fullerton, since the most recent work to be disregarded was completed, 15 semester units with at least a 3.0 grade-point average, or 30 semester units with at least a 2.5 GPA, or 45 semester units with at least a 2.0 GPA. Work completed at another institution cannot be used to satisfy this requirement.

When such action is taken, the student's permanent academic record shall be annotated so that it is readily evident to all users of the record that no work taken during the disregarded terms, even if satisfactory, may apply toward baccalaureate requirements. All work must remain legible on the record ensuring a true and complete academic history.

This policy is not intended to merely allow students a means by which they may improve their overall grade-point averages for graduation with honors, admission to graduate and professional schools or to meet eligibility criteria for other awards, employment or acceptance into military and other programs.

### Transcripts

Official transcripts of courses taken at the university are issued only with the written permission of the student concerned. Partial transcripts are not issued. A fee of \$4 for each transcript must be received before the transcript can be released.

Normally, transcripts are available within three working days, except at the end of the semester when the student should allow about 10 days after the last day of the semester.

Transcripts from other institutions, which have been presented for admission or evaluation, become a part of the student's permanent academic file and are not returned or copied for distribution. Students desiring transcripts covering work attempted elsewhere should request them from the institutions concerned.

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### GOOD STANDING

Good standing indicates that a student is eligible to continue and is free from financial obligation to the university. A student under academic disqualification, disciplinary suspension or disciplinary expulsion is not eligible to receive a statement of good standing on transcripts issued by the university or on other documents.

### **CHOICE OF REQUIREMENTS**

A student remaining in continuous attendance in regular sessions and continuing in the same



curriculum at any campus of the California community colleges or in any combination of California community colleges and campuses of The California State University may, for purposes of meeting graduation requirements, elect to meet the graduation requirements of such campuses from which he or she will graduate in effect either at the time of entering the curriculum or at the time of graduation therefrom, except that substitutions for discontinued courses may be authorized or required by the proper university authorities.

### STOP-OUT POLICY

With certain exceptions, undergraduate students and

postbaccalaureate unclassified students may be absent for one semester and maintain their continuing student status. This includes election of curriculum requirements for graduation and eligibility to register for the next semester. The exceptions are as follows:

Disqualified Students—Students who are disqualified at the end of a semester and have not been reinstated will not receive registration materials; they must apply for readmission, and if admitted, may be subject to new curriculum requirements.

Foreign-Visa Students—Students with foreign visas are required to maintain continuous enrollment. The stop-out policy is not applicable.

Students absent for more than one semester must apply for readmission should they wish to return to Fullerton. Election of catalog requirements will not be jeopardized for certain students. Students should consult an evaluator in the Office of Admissions and Records.

### LEAVE OF ABSENCE

A leave of absence may be granted based on certain documented extenuating circumstances (e.g. illness or disability, active duty in the armed forces of the U.S.) and normally is granted for not more than one year. Undergraduate and postbaccalaureate unclassified graduate students qualify for a leave if they have completed at least one semester in residence at Cal State Fullerton and are in good academic standing. Forms to request a leave of absence are available at the Admissions and Records information counter.

### CONTINUOUS RESIDENCY REGULATIONS

Good Standing

Choice of Requirements

Stop-Out Policy

Leave of Absence

Withdrawal from the University

Retention, Probation and Disqualification

Student Conduct

Parking on Campus

Public Safety Department

Debts Owed to the University

Student Rights

Privacy Right of Students in Education Records

Use of Social Security Number

Such an approved leave of absence authorizes the student to return without reapplying to the university and continue under the catalog requirements that applied to the enrollment prior to the absence.

Undergraduate and postbaccalaureate unclassified graduate students on approved leaves of one year (two academic semesters) or less are eligible to register for the semester immediately following the end of the leave and will be mailed registration materials automatically.

The leave of absence policy for conditionally classified and classified graduate students and credential students is defined in the "Graduate Regulations" section of this catalog.

### WITHDRAWAL FROM THE UNIVERSITY

A student who wishes to withdraw from the university during a semester must do so officially following procedures defined in the class schedule for that semester. Complete withdrawal from the university is accomplished by following the procedures for dropping classes. See the section on refund of fees for possible refunds. No student may withdraw after the date shown on the university calendar as the last day of instruction.

# RETENTION, PROBATION AND DISQUALIFICATION

For purposes of determining a student's ability to remain in the university, both quality of performance and progress towards the educational objective will be considered.

### Academic Probation

An undergraduate student shall be placed on academic probation if in any semester the cumulative grade-point average or the grade-point average at Fullerton falls below 2.0 (grade of C on a four-point scale). The student shall be advised of probation status promptly and, except in unusual instances, before the start of the next consecutive enrollment period.

An undergraduate student shall be removed from academic probation and restored to clear standing upon achieving a cumulative grade-point average of 2.0 in all academic work attempted, in all such work attempted at Fullerton, and is making satisfactory progress towards his or her educational objective.

A postbaccalaureate student (credential, unclassified, or undeclared status; but not second baccalaureate degree students) shall

be subject to academic probation if after completing 12 or more units his or her postbaccalaureate cumulative grade-point average for units attempted at California State University, Fullerton falls below a 2.50 average. The GPA will determine whether a student is subject to probation only after the student has completed 12 semester units.

A graduate student enrolled in a graduate degree program in either conditionally classified or classified standing shall be subject to academic probation if he or she fails to maintain a cumulative grade-point average of at least 3.0 (grade of B on a four-point scale) in all units attempted.

### Academic Disqualification

An undergraduate student on academic probation shall be subject to academic disqualification if:

- as a lower-division student (fewer than 60 semester units of college work completed) he or she falls 15 or more grade points below a 2.0 average on all college units attempted or in all units attempted at this institution; or
- as a junior (60 to 89.9 semester units of college work completed) he or she falls nine or more grade points below a 2.0 average on all college units attempted or in all units attempted at this institution; or
- as a senior (90 or more semester units of college work completed) he or she falls six or more grade points below a 2.0 average on all college units attempted or in all units attempted at this institution.

A graduate student enrolled in a graduate degree program shall be subject to disqualification if while on probation sufficient grade points are not achieved to remove probationary status. Disqualification may be either from further registration in a particular program or from further enrollment in the university, as determined by an appropriate campus authority.

A postbaccalaureate student who is on probation shall be subject to disqualification if he or she fails to maintain at least a 2.50 cumulative grade-point average after the completion of 12 units at California State University, Fullerton, in postbaccalaureate status. Disqualification may be either from further registration as a postbaccalaureate, credential or certificate program student or from further enrollment at California State

University, Fullerton, as determined by the vice president for academic affairs or designee.

### STUDENT CONDUCT

The university properly assumes that all students will conduct themselves as mature citizens of the campus community. Compliance with all regulations of the university is therefore expected. If, however, on any occasion a student or an organization is alleged to have compromised accepted university standards, appropriate judiciary procedures shall be initiated through the established university process. Every effort will be made to encourage and support the development of self-discipline and control by students and student organizations. The vice president for student affairs, aided by members of the faculty, is responsible to the president of the university for the behavior of students in their relationships with the university. The president in turn is responsible to the chancellor and the trustees of The California State University, who themselves are governed by specific laws of the State of California.

Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Code of Regulations. These sections are as follows:

41301. Expulsion, Suspension and Probation of Students. Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus-related:

- (a) Cheating or plagiarism in connection with an academic program at a campus.
- (b) Forgery, alteration or misuse of campus documents, records, or identification or knowingly furnishing false information to a campus.
- (c) Misrepresentation of oneself or of an organization to be an agent of the campus.
- (d) Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.
- (e) Physical abuse on or off campus property of the person or property of any member

- of the campus community or of members of his or her family or the threat of such physical abuse.
- (f) Theft of, or non-accidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.
- (g) Unauthorized entry into, unauthorized use of, or misuse of campus property.
- (h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis.
- (i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a campus function without prior authorization of the campus president.
- (j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.
- (k) Abusive behavior directed toward, or hazing of, a member of the campus community.
- (1) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section.
- (m) Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section.
- (n) For purposes of this Article, the following terms are defined:
  - (1) The term "member of the campus community" is defined as meaning California State University trustees, academic, non-academic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.

- (2) The term "campus property" includes:
  - (A) Real or personal property in the possession of, or under the control of, the Board of Trustees of The California State University, and
  - (B) All campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.
- (3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a black jack, sling shot, billy, sandclub, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.
- (4) The term "behavior" includes conduct and expression.
- 5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger, or physical or emotional harm, to any member of the campus community; but the term "hazing"does not include customary athletic events or other similar contests or competitions.
- (o) This Section is not adopted pursuant to Education Code Section 89031.
- (p) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this Article is amended, all acts and omissions occurring prior to that effective date shall be subject to the provisions of this Article as in effect immediately prior to such effective date.

41302. Disposition of Fees: Campus Emergency; Interim Suspension. The President of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester, quarter, or summer session in which he or she is suspended or expelled shall be refunded. If the student is readmitted

before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the President or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

41303. Conduct by Applicants for Admission. Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302. Admission or readmission may be qualified or denied to any person who, while a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

41304. Student Disciplinary Procedures for The California State University. The chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for The California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct

which is a ground for discipline under Sections 41301 or 41302, and for qualified admission or denial of admission under Section 41303; the authority of the campus president in such matters; conduct-related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a hearing officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The chancellor shall report to the Board actions taken under this section.

### **PARKING ON CAMPUS**

Semester parking permits or daily permits are required Mondays through Thursdays from 7 a.m. until 10 p.m. and from 7 a.m. to 5 p.m. on Fridays. These same times also apply to all 30-minute zones (green curbs). Red curbs/fire lanes, 15-minute time zones, disabled person stalls, service/maintenance stalls, state vehicle only stalls, loading zones/white and yellow curbs, and all other vehicle violations are enforced 24 hours a day.

Semester parking permits or daily permits are required during intersession and summer session. Parking citations are issued beginning the first day of classes for all vehicles not displaying a current parking permit.

Semester parking permits or daily permits are honored in the following student lots: **A**, **B**, **C**, **E** and **G**. Semester student permits and daily permits also are valid in Lot E West after 1 p.m. only and Lots D and I after 6 p.m. only. Lots F, H and K are designated for faculty/staff parking only.

Semester parking permits are available from the university cashier, located in University Hall 180, upon presentation of your CSUF ID card, completion of the permit application and payment of the fee. A student semester parking permit is \$54. Permits also may be purchased via mail only in conjunction with your registration fees. Permits are not transferable and are valid only when purchased from the university cashier. Vehicles displaying a lost or stolen permit will be cited for a fine of \$106.00.

The cost of a daily permit is \$1.50. Daily permits may be purchased in Lots A, B North and G during all hours in which permits are required. Daily permits also may be purchased in Lot E West and B South after 1 p.m., and Lots D and I after 6 p.m. Daily permits purchased from any open permit

machines are valid in any student lot.

It is a violation to stop, stand or wait in parking lot aisles for parking space. Violators are subject to a \$36 citiation.

Motorcycle decals are required for all motorcycles and mopeds and may be purchased only from the university cashier.

Motorcycles must park in designated motorcycle areas of permit lots. Mopeds may be parked in designated motorcycle areas.

Parking permits for disabled persons are available for purchase only from the university cashier. A signed authorization form must be obtained from Disabled Student Services (University Hall, Room 101) and must accompany the permit application.

See the Parking and Transportation Services Web site at: http://parking.fullerton.edu.

### **PUBLIC SAFETY DEPARTMENT**

Building T-1200 Business - (714) 278-2515 Emergency - dial extension 3333 Campus Emergency - dial 911

The Public Safety Department at Cal State

Fullerton is made up of the following sections:

- 1) University Police
- 2) Lost and Found
- 3) Motor Pool and Key Pickup
- 4) Community Service Officers

All sections of the department utilize a wide range of services, both traditional and nontraditional. In addition, all CSUF police officers are sworn police officers who have graduated from a Police Academy. We investigate all crimes on campus and strictly enforce all vehicle codes and alcohol violations. Our department has a very close working relationship with all surrounding police departments, and we are contacted when any major crime occurs off campus at any student organization. Our common goal is to assure that our campus is a safe place to study, teach, work, reside and visit.

### Crimes on Campus

The majority of crimes on and around the campus are crimes of opportunity. This includes theft of private property, such as bicycles, backpacks and books; thefts from vehicles and auto thefts.

Alcohol and drug use is a worldwide problem, and Cal State Fullerton is no exception, but campus problems are on a much smaller scale. Alcohol is restricted to the Pub, legal-age special events and inside residents'- dorm rooms. We enforce all federal and state drug laws, as well as offer substance abuse education programs throughout the year.

Awareness by members of the campus community is a major factor in reducing these types of crimes. Your willingness to secure your property and report suspicious activities immediately to the University Police will greatly assist us in this endeavor.

### Crime Prevention Programs

Crime prevention is citizen awareness and participation. It is a willingness to look out for one another, to report suspicious activities immediately to the University Police Department and to become involved in the safety and security of the campus.

Operation Identification (or Operation ID) is a citizen's burglary prevention/property identification program for use in homes and residence halls. It involves the marking of property with an identifying number as a means of burglary and theft prevention. This ID number also helps law enforcement agencies identify your property should it become lost or stolen and assists us in apprehending those individuals found in possession of stolen property. Mark your valuables by inscribing your driver's license number or state identification card number in a location that can readily be seen by an inspecting police officer. An engraver can be checked out from the University Police Department.

In addition to this program, the University Police Department, in conjunction with the Women's/Adult Reentry Center, provides presentations on personal safety and rape awareness several times throughout the school year.

Each school year brings with it some different and unique crime problems. When these incidents occur, the University Police Department circulates flyers and runs articles in the Daily Titan newspaper to advise the community and create an awareness of any problems. Neighborhood (dorm) Watch also is an ongoing program at residence housing, which includes regular meetings with residence advisors and distribution of flyers or posters to communicate crime or other safety issues that may be of interest to the residents.

### How to Contact Us

The California State University, Fullerton Police Department is located at the corner of State College Blvd. and Gymnasium Drive. The Police Department is open 24 hours a day, seven days a week, including holidays. The campus is never without police protec-

tion, including both uniform police officers and plain-clothes detectives.

### Suspicious Activities

Many criminals escape detection and arrest because a citizen will observe suspicious persons or possible criminal activities and fail to report them to the Police Department. Members of the campus community can help by becoming aware of their surroundings and developing a perception of what seems out of place or out of the ordinary. It may be something as simple as a door-to-door salesperson attempting to solicit at the residence halls, a vehicle parked in an unusual location late at night, or someone just hanging around. What one reports may be an innocent activity. However, it could also be serious criminal activity about to happen or actually occurring. Report suspicious activities immediately the University Police Department.

We want you to call, and we don't mind if the incident doesn't turn out to be a crime in progress. Only if you call, can we respond and suppress potential criminal activity.

### How to Summon Assistance

Emergency assistance on campus may be obtained by dialing 9-911 from any office or Centrex phone; 3333 from any hallway phone; or 911 from any residence or pay phone. Dialing these numbers connects the caller immediately with the University Police Department, which will respond with whatever assistance is needed (i.e., paramedics, ambulance, the Fire Department, first-aid or police protection).

If you are outside on the campus grounds when an emergency occurs and a standard telephone is not available, you may use one of the numerous emergency telephones located throughout the campus. The emergency telephones are identifiable as yellow boxes on poles, with blue lights atop, that are wired directly to the University Police Department for immediate response.

Offenses Reported	1996	1997	1998
Murder & Manslaughter	0	0	0.10
Rape / which will be the same of which	1	perdedebased Oceanisation	0
Robbery		sequented site beginning	2
Assault - Total	18	pensonal and 15* or remain	18
Aggravated Assault	12	bedyrib soci 2 statemen	2
Simple Assault	6	10	16
Burglary	19	27	23
Larceny-Theft	330	329	234
Motor Vehicle Theft	53	23	
Vandalism	35	25	34
Weapons Possession	5	and the state of t	13
Sex Offenses	6	6	
Drug Abuse Violations	22	34	67
DUI (101 mood (1kg) view on the conve	41	22	
Liquor Law Violations	4	4 augs	AD 5 DAIN
Drunkenness		same which 4 commen	3
Disorderly Conduct	//1	27	19
Theft of Bicycles	17	23 mal-hou	
Thefts from Motor Vehicles	157	98	
Hate Crimes 000000 and bli	1 30	usultarium bat 0 adum nas	0

Compiled by the CSUF Public Safety Department

### **DEBTS OWED TO THE UNIVERSITY**

Should a student or former student fail to pay a debt owed to the university, the university may "withhold permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise or any combination of the above from any person owing a debt" until the debt is paid (per Sections 42380 and 42381 of Title 5, California Code of Regulations). For example, the university may withhold permission to receive official transcripts of grades for any person owing a debt. If a student believes that he or she does not owe all or part of an unpaid obligation, the student should consult with Student Financial Services. The student may submit pertinent information to support his or her appeal of the unpaid debt. Student Financial Services will consider the student's appeal, consulting with another office or department if necessary. The student will be advised by Student Financial Services of its decision on payment of the debt.

### STUDENT RIGHTS

### Nondiscrimination Policy

The California State University does not discriminate on the basis of race, color, national origin, sex, religion, sexual preference, marital status, pregnancy, age or disability in the educational programs or

activities it conducts. Such programs and activities include but are not limited to admission of students, employment and intercollegiate athletics. Discrimination is prohibited by Title VI and VII of the Civil Rights Act of 1964, as amended, Title IX of the Education Amendments of 1972, and Sections 503 and 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, including all subsequent amendments and the administrative regulations adopted thereunder by the Department of Education.

Inquiries concerning compliance with these Acts and implementing regulations should be addressed to:

Rosamaria Gomez-Amaro
Director, Affirmative Action, CSUF
College Park, Suite 700
(714) 278-3951
http://www.fullerton.edu/root/afirmact/
aahome.htm

Paul K. Miller
Director, Disabled Student Services, CSUF
University Hall 101
(714) 278-3117

U.S. Office of Civil Rights
Regional Director, Region 9
50 United Nations Plaza, Room 239
San Francisco, CA 94102
(415) 556-7000

<sup>\*</sup> Includes assaults with dangerous weapons

### Sexual Harassment

It is the policy of California State University, Fullerton and the California State University to maintain a working and learning environment free from sexual harassment of its students, employees and those who apply for student or employee status. Sexual harassment is illegal under Title VII of the Civil Rights Act of 1962, Title IX of the Higher Education Amendments of 1972, and the California Education Code 89535. Executive Order 345 Prohibition of Sexual Harassment also prohibits sexual harassment within the California State University system. The university will not tolerate sexual harassment and will take action to eliminate such behavior. Information concerning campus sexual harassment policies and procedures can be obtained from the Affirmative Action Office, College Park, Suite 700, (714) 278-3951 or www.fullerton.edu/affirmativeaction.

### Right of Petition

Students may petition for review of certain university academic regulations when unusual circumstances exist. It should be noted, however, that academic regulations, when they are contained in Title 5, California Code of Regulations, are not subject to petition

Petition forms are available in the Office of Admissions and Records. The University Petitions Committee will take action on the petition based on recommendations provided by appropriate officers and the student will be notified of the decision. Results of the action will be placed in the student's folder in the Office of Admissions and Records.

The petitions committee members shall consist of the associate dean of each school, or designee, the university registrar, an Academic Programs representative, the coordinator of undergraduate studies, one faculty member of the University General Education Committee, and the associate registrar, who will serve as the secretary.

### Right of Noncompliance

Certain university activities either within or outside of the classroom may involve varying degrees of risk to the participants. It is university policy that the instructor directing such activities fully divulge to all potential participants the specific nature of such risks and obtain from them their expressed or implied consent prior to undertaking activities.

The student who at any time comes to

believe that the risks, whether physical or psychological, are excessive has the responsibility to withdraw from participation at the time and to inquire of the instructor if there are alternative means of fulfilling the requirements without penalty. If there is none, the student may petition for withdrawal from the course without penalty or appeal for an appropriate modification of the activity. The appeal may be made either to the chair of the department concerned, or to the chair of the Institutional Review Board, or both.

### Right of Academic Appeal

The right of due process, appeal and peer judgment is established by the Student Bill of Rights and Responsibilities for students who feel they have been treated capriciously or with prejudice by faculty or administrators. Students should make every effort to resolve the issue informally by consulting the individual concerned, and if necessary the department chair and dean of the school.

Students who still believe the problem has not been resolved should consult with the coordinator of academic appeals. Upon the student's request, the coordinator will convene the Academic Appeals Board to review the student's appeal. Students must initiate the appeals process by contacting the faculty member and/or the department chair within one academic month after they could reasonably be expected to be aware of the action in question.

Copies of the governing documents are available in the Academic Appeals Office.

## PRIVACY RIGHTS OF STUDENTS IN EDUCATION RECORDS

The Family Educational Rights and Privacy Act (FERPA) affords students the right to:

Inspect and review their education
records within 45 days of the university's receipt of their request. After
receiving a written request identifying the
record(s) sought, the university will notify
the student when and where the records
may be inspected. If the office receiving
the request does not maintain the records
requested, that office will advise the
student where and to whom to address
their request.

- 2. Request amendment of an education record thought to be inaccurate or misleading. A student seeking to amend a record they believe is inaccurate or misleading should write the administrator responsible for that record, clearly identify the information at issue, and specify why it is inaccurate or misleading. If the university does not amend the record, a student has a right to a hearing regarding their request. The university provides students with additional information regarding hearing procedures when notifying students of their right to a hearing.
- 3. Consent to disclosures of personally identifiable information contained in their education records, except when FERPA authorizes disclosure without consent. FERPA permits disclosures without consent to "school officials" with "legitimate educational interests." "School officials" include university employees (including law enforcement unit and health personnel); agents of the university (such as an attorney or collection agent); or individuals, including students, serving on official committees or assisting a school official perform their tasks. A school official has a "legitimate educational interest" if the official needs to review an education record to fulfill their professional responsibility.

Upon request, the university discloses education records without consent to officials of another school in which a student seeks to enroll.

Cal State Fullerton has designated a student's name, date and place of birth, address, telephone number, class level, major, dates of attendance, degrees and awards received, previous educational institutions attended, participation in recognized activities, and weight and height if an athletic team member as "Public Directory" information; and a student's name and university-assigned electronic mail address as "Class Directory" information. Students may prevent the designation of this information as directory information by signing and returning the appropriate release provided in the spring and fall fee statements.

4. File a complaint with the U.S. Department of Education concerning Cal State Fullerton's alleged failure to comply with FERPA. The office that administers FERPA is:

Family Policy Compliance Office U.S. Department of Education 600 Independence Avenue, SW Washington, DC 20202-4605

Contact the Office of the Vice President for Student Affairs at (714) 278-3221 for additional information or questions regarding students' privacy rights in education records.

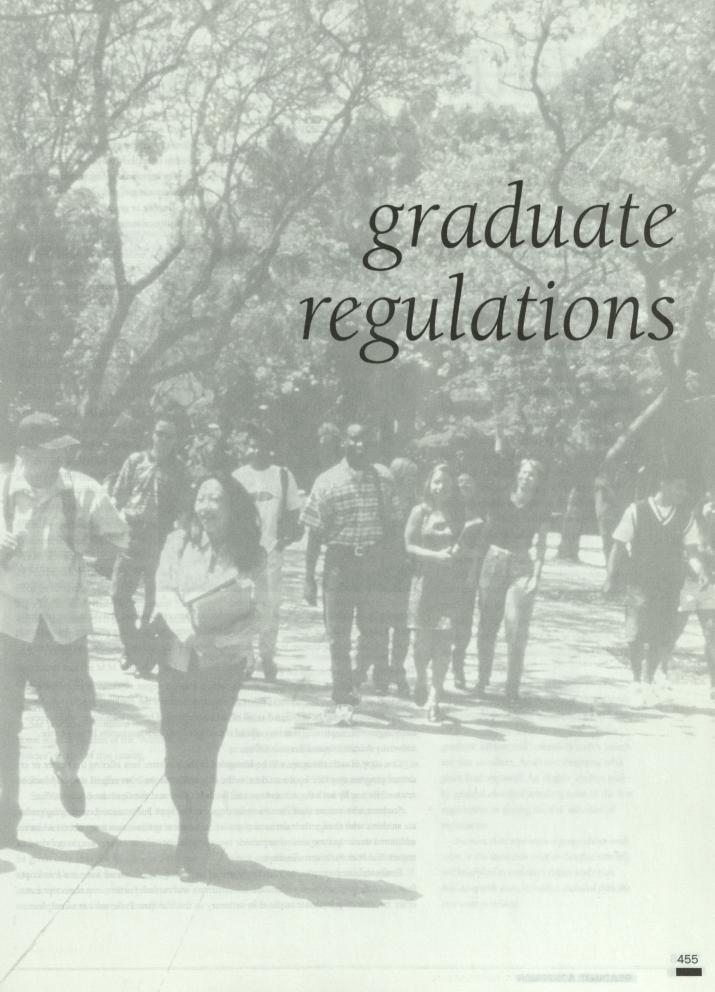
### **USE OF SOCIAL SECURITY NUMBER**

Applicants are required to include their correct social security numbers (taxpayer identification numbers) in designated places on applications for admission pursuant to the authority contained in Section 41201, Title 5, California Code of Regulations, and Section 6109 of the Internal Revenue Code. The University uses the social security number to identify records pertaining to the student as well as to identify the student for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. Also, the Internal Revenue Service requires the University to file information returns that include the student's social security number and other information such as the amount paid for qualified tuition, related expenses, and interest on educational loans. That information is used to help determine whether a student, or a person claiming a student as a dependent, may take a credit or deduction to reduce federal income taxes.

Disclosure of a student's account number is required as a condition for payment of any university debt. The SSN may be used as an account number (identifier) throughout the life of the student's enrollment.

Students are required to write their student identification (social security) numbers on personal checks submitted for any payment to the university. Payment by personal check is consent by the student for the university to write the student's identification number on the check if it is not referenced. If a student prefers that his or her student identification number not be on the check, then the student must submit payment by cashier's check, money order, or, when appropriate (other than mail-in or drop-off registration), cash. Use of the student identification number assures credit

to the correct student university account. The social security number, which is the student identification number for most students, is required by the Franchise Tax Board for collection of returned checks.



# graduate admission

### **DIRECTIOR, GRADUATE STUDIES**

Gladys Fleckles

### **EVALUATION TECHNICIAN**

Pam Migliore

### **GRADUATE STUDIES OFFICE**

McCarthy Hall 129

### **GRADUATE ADMISSION**

Application Procedures

Admission Procedures

### **APPLICATION PROCEDURES**

All applicants for any type of postbaccalaureate or graduate standing (e.g., master's degree applicants, those seeking credentials, and those interested in taking courses for personal or professional growth) must file a complete application within the appropriate filing period. Second baccalaureate degree candidates should apply as postbaccalaureate students with an undergraduate degree objective. A complete application for postbaccalaureate or graduate standing includes all of the forms and fees described in the Graduate and Postbaccalaureate application booklet.



Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the nonrefundable application fee. In the event that an applicant wishes to be assured of initial consideration by more than one campus, it is necessary to submit a separate application (including fee) to each.

Applications may be obtained from the academic department sponsoring the degree, the Office of Admissions and Records or the Graduate Studies Office of any California State University campus. Instructions for completing the application forms are included in the material supplied. Since some programs require the com-

pletion of an additional form as part of the application process, students should inquire concerning this possibility at the office of the academic unit offering the particular program. An electronic version of the CSU application is available on the World Wide Web at "http://www.calstate.edu."

### Transcripts

When an applicant for graduate standing, with a master's degree objective, a credential-only objective, or a master's degree and credential objective, receives the application acknowledgement, requests should be submitted to all of the institutions of higher learning in which previously registered, requesting that two official transcripts from each institution be sent to the university Admissions and Records Office.

One copy of each transcript will be forwarded to the academic unit offering the degree or credential program specified by the student as the objective; and the other official transcript will be retained for use by both the Admissions and Records Office and the Graduate Studies Office.

Students who receive their baccalaureate degree at Cal State Fullerton and continuing graduate students who change their declared objective subsequent to admission must obtain whatever additional transcripts are needed to provide two complete sets of transcripts, but do not need to request Cal State Fullerton transcripts.

Postbaccalaureate applicants with no degree or credential objective must submit a transcript from the college or university where the baccalaureate was earned. Further, one transcript from other institutions attended is required as necessary so that Cal State Fullerton has a complete

record of the last 60 semester units attempted prior to enrollment at Fullerton.

All transcripts must be received directly from the issuing institutions and become official records of the university; such transcripts therefore cannot be returned or reissued. Transcripts that include course work from other than the issuing institution are not sufficient evidence of course work taken elsewhere. Foreign language transcripts must be accompanied by certified English translations.

### Tests

The Graduate Record Examination (GRE), or another test, may be required for conditionally classified admission, or subsequently for the granting of classified standing. Test requirements vary from department to department. Students should refer to master's degree requirements outlined in the academic department section of this catalog. Applications and information on test dates for nationally administered tests (e.g., GRE, GMAT) are available in the Testing Center.

### **TOEFL** Requirement

All graduate and postbaccalaureate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English, must demonstrate competence in English. Those who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must receive a minimum score of 550 (paper) or 213 (computer) on the Test of English as a Foreign Language (TOEFL). Programs requiring a higher score than the minimum 550 include the MBA (570 paper, 230 computer), the MPA (570 paper, 230 computer), the M.S. in Education-TESOL (573 paper, 230 computer) and the M.M. and M.A. in Music (560 paper, 220 computer).

### **International Students**

See procedures outlined in the international student portion of the "Admissions Policies" section of this catalog.

### Second Master's Degree or Concentration

Students may wish to pursue a second master's degree or concentration. Approval for admission to graduate standing in the second degree program or concentration may be given only after the first degree has been awarded. Units used for the first degree or concentration may not be applied to the second. Students who have completed a

master's degree at Cal State Fullerton in one concentration and wish to complete another will not be awarded a second degree.

### Nonaccredited Schools

An applicant who is a graduate of a nonaccredited school must apply for admission as an undergraduate to complete requirements for a bachelor's degree from this institution. However, a student in this category who gives evidence of unusual promise and superior background may petition for graduate standing as conditionally classified. If the petition is granted, the student may then proceed in the graduate program. If the petition is denied, the student may be requested to complete a specified number of undergraduate units in order to establish equivalency to the bachelor's degree or to complete requirements for a bachelor's degree at CSUF. For further information, contact the Graduate Studies Office.

### **ADMISSION PROCEDURES**

Following completion of application procedures and subsequent review of the student's eligibility by the Admissions Office and appropriate academic unit, the student will be notified by the Admissions Office concerning admission. Only a written notice from the Admissions Office is valid proof of admission. Academic advisement prior to admission is tentative and cannot be construed as granting official admission to a program or establishing requirements for the degree.

Students may apply for a degree objective, a credential or certificate objective, or no program objective. Four admission categories are defined in terms of these academic objectives.

### Postbaccalaureate Standing: Unclassified

To qualify for admission with no degree objective, students must (1) hold an acceptable bachelor's degree from a regionally accredited four-year institution or have equivalent preparation as determined by the appropriate campus authority; (2) have a grade-point average of at least 2.5 (A = 4.0) in the last 60 semester (90 quarter) units; and (3) have been in good standing at the last college attended. In unusual circumstances, exceptions may be made to these criteria.

Admission with postbaccalaureate-unclassified standing does not constitute admission to graduate degree or credential programs. If a student wishes to change academic objective after admission, an application for

change of objective must be filed in the Admissions Office.

### Postbaccalaureate Standing: Classified

To qualify for admission with a credential or certificate objective, students must (1) meet the requirements for postbaccalaureate-unclassified standing and (2) satisfy any additional professional, personal, scholastic, and other standards, including qualifying examinations. Refer to specific credential requirements under the departmental section of this catalog.

### Graduate Standing: Conditionally Classified

To qualify for admission with a graduate degree objective, students must (1) meet the admission requirements for postbaccalaureate-unclassified standing and (2) meet any additional requirements of the particular program including a favorable recommendation from the academic unit.

An applicant who has deficiencies in prerequisite preparation or in grade-point average may be considered for admission in conditionally classified standing with the approval and recommendation of the appropriate campus authority. A student admitted in conditionally classified standing may subsequently be granted classified standing in an authorized graduate degree curriculum if professional, personal, scholastic, or other standards including qualifying examinations are met.

### Graduate Standing: Classified

Determination of the student's prerequisites and assignment of courses, units and grade points required to remove deficiencies is made by the academic unit. For specific information on prerequisites to classified standing, consult departmental program requirements.

Classified standing is normally granted when all prerequisites have been satisfactorily completed, the official study plan formulated, recommendation made by the appropriate graduate adviser and committee to the associate vice president, Academic Programs who gives final approval. An eligible student may be granted classified standing prior to the first registration or during the first semester of registration.

No more than nine units of postgraduate work taken at this institution prior to classified standing will be applied to a master's degree study plan. Any acceptable transfer work is excluded from the nine units permitted. It is the student's responsibility to initiate the request for classified standing by making an appointment with the departmental graduate program adviser. The student will be sent a copy of the approved study plan by the Graduate Studies Office. Copies will be filed in the academic unit, university records and the Graduate Studies Office. A student is not officially classified until an approved study plan is on file in the Graduate Studies Office.

To be granted the master's degree, a student must have been classified, advanced to candidacy, and completed a satisfactory pattern of study in an approved field. Requirements that apply to all programs are described in the following section. For specific requirements of particular programs, see the program descriptions in the departmental section of this catalog.

Each student's program for a master's degree (including eligibility, classified standing, candidacy, and award of the degree) must be approved by the departmental graduate program adviser, the student's graduate committee, and the Office of Graduate Studies.

# master's degree **UNIVERSITY WRITING REQUIREMENT** ements Students working toward a master's degree are required to demonstrate writing ability commensurate with the baccalaureate degree. This requirement should be met within the first nine

1. An upper-division writing requirement at any CSU campus.

units of graduate work by successfully completing one of the following:

- 2. An upper-division course at another university equivalent to a course that meets the Cal State Fullerton requirement. Such equivalence must be certified by the department or program responsible for the student's academic work.
- 3. Cal State Fullerton Examination in Writing Proficiency.



4. Upper-division or graduate-level course(s) certified as meeting the writing requirement and approved by the department or program responsible for the student's academic work. The grade received must be a C or better.

Any student who has not met the requirement within the first nine units of graduate work will be required to enroll in a certified course at the earliest opportunity. Departments and programs may, at their discretion and with approval of the Graduate Education Committee, establish additional writing requirements for their graduate students. For further information, students should consult their department program adviser or the Graduate Studies Office.

### STUDY PLAN

General requirements for the master's degree study plan include:

- 1. A minimum of 30 approved semester units, or more, as determined by the particular program.
- 2. A minimum of 21 semester units in residence (transfer and Cal State Fullerton extension credit are not considered to be in residence). For programs that require a minimum of 42 units, at least half the units must be taken in residence.
- 3. A unit of course work taken at a college or university on the quarter system will be considered as equivalent to two-thirds of a unit when such course work is considered acceptable as transfer work. See additional requirements for transfer credit under "Graduate Enrollment Policies."
- 4. Upper-division and graduate-level courses only. The inclusion of 300-level course work is generally discouraged. The graduate program adviser must submit to the associate vice president, Academic Programs a written justification for any 300-level course work proposed for inclusion on the study plan unless it is an existing program requirement.

### **MASTER'S DEGREE REQUIREMENTS**

University Writing Requirement Study Plan Advisers and Committees Advancement to Candidacy Completion of Requirements and Award of Degree Graduate Academic Standards

- 5. Not less than one-half of the total units in graduate (500-level) courses.
- 6. Not more than six semester units for a thesis, if a thesis is required.
- 7. A maximum of six units of independent study.
- No courses taken to satisfy prerequisite requirements included in the minimum of 30 units.
- None of the following: correspondence courses, credit by examination, or similar.
- 10. No courses with nontraditional grades (e.g., CR, S, P) and no grade on the study plan below a *C*.
- 11. A minimum grade-point average of 3.0(B) in all courses attempted to satisfy requirements for the degree.
- Completion or satisfactory validation of all study plan courses within five years starting with the earliest course on the study plan.
- All courses taken after the baccalaureate (or postbaccalaureate credit granted) and not credited toward another degree.
- 14. A final evaluation, which may be a thesis, a project, a comprehensive examination, or any combination of these.

The approved study plan is valid as long as the student maintains continuous enrollment in regular semesters at the university; otherwise it is necessary to reapply and meet any changed or additional requirements approved in the interim.

### **Election of Curriculum**

A student remaining in continuous attendance in regular semesters and continuing in the same curriculum may elect to meet the degree requirements in effect either at the time of entering the curriculum or at the time of completion of degree requirements, except that substitution for discontinued courses may be approved by the graduate program adviser.

### Changes in Study Plan

If a classified graduate student wishes to make a change in the approved study plan, a request should be made to the appropriate graduate program adviser. Requests must be made prior to registration for any course work to be substituted or added. No course may be removed from the study plan after a student has taken it. Forms which may be

used to file a request for change in study plan are available from graduate program advisers or in the Graduate Studies Office.

Changes in study plan may also be warranted by outdated course work or grade-point average (see "Time Limit for Completion" and "Grade-point Average Standards").

### Time Limit for Completion

All requirements for the master's degree, including all course work on the student's study plan, normally should be completed within five years. This time limit begins with the semester of the earliest course used on the student's study plan and consists of a total of ten (10) consecutive semesters. When individual circumstances warrant, this time limit may be extended for up to two years (four additional consecutive semesters).

A student may request an extension of the five-year time limit by filing a petition with the Graduate Studies Office. The petition must contain a full explanation of the circumstances that prevented completion of the degree requirements within the normal five-year limit and must be approved (signed) by the graduate program adviser, the chair of the appropriate graduate committee and the director of Graduate Studies. Approvals for extension must be obtained prior to the expiration of the five-year limit.

Outdated course work (course work older than the student's approved time limit; i.e., normally five years but with approval may be a maximum of seven years) must be repeated. A maximum of nine (9) units of course work may be exempt from this policy if it can be validated. Copies of the "Petition for Validating Outdated Course Work" may be obtained from the Graduate Studies Office. Validation is allowed at the discretion of the graduate program adviser, the academic unit offering the subject course and the director of Graduate Studies. Validation must be accomplished by passing a written comprehensive test of the materials covered by the course being validated or by some equivalent method with prior approval of both the graduate program adviser and the director of Graduate Studies. Any outdated course work that cannot be validated either because of a denial of the petition or because it is in excess of the nine units allowed for validation, must be repeated or updated through the use of additional study plan course work. If course work is repeated or additional

course work is required to update, the units and grades will be added to the study plan.

NOTE: Outdated transfer course work cannot be validated.

### **ADVISERS AND COMMITTEES**

University policy provides that each student's program for the master's degree shall be under the guidance of an adviser and for some programs, a committee as well. A graduate program adviser is designated in each department or program to give overall supervision for the graduate program. In some departments, the graduate program adviser also serves as the individual student's adviser. Policies and procedures related to graduate committees are available in the Graduate Studies Office.

It is the responsibility of the student to arrange appointments for advisement and other information in the office of the academic unit offering the degree program. As a minimum, the student should obtain advisement (1) either prior to or during the first semester of attendance, (2) when requesting classified standing, and (3) when applying for a graduation check prior to the final semester.

It is advisable for the student to maintain a personal file of transcripts and other evidences of grades and achievements, and to have these documents available whenever seeking advisement.

### **ADVANCEMENT TO CANDIDACY**

A student who has been granted classified standing is normally advanced to candidacy after a request is filed for graduation by the student and an affirmative recommendation made by the graduate program adviser. A minimum grade-point average of 3.0 (B) for all study plan course work is required; other scholastic, professional and personal standards; the passing of examinations; and other qualifications may be required. Only those students who continue to demonstrate a satisfactory level of scholastic competence and fitness, as determined by the appropriate authorities, shall be eligible to continue in graduate programs.

### COMPLETION OF REQUIREMENTS AND AWARD OF DEGREE

The degree is awarded upon the satisfactory completion of all state and university requirements, the specific requirements for the particular program, the recommendation

of the appropriate graduate adviser and committee (advancement to candidacy), and the approval of the faculty and the Office of Graduate Studies. All work for the degree, except final course examinations, should be submitted by the last day of classes, in order to assure granting of the degree by the end of the semester or session.

If a thesis is required, it must be deposited in the campus bookstore according to instructions shown under "Theses and Projects," no later than the last day of final examinations for the semester or session in which the degree is to be awarded.

It is the student's responsibility to file an application for a graduation check and pay the graduation and diploma fee prior to the beginning of the final semester. Forms are available at the Admissions and Records information counter, the Graduate Studies Office, and the Registrar's Office graduation unit.

The application for graduation initiates review of degree requirements and formal approval by the faculty, as well as serving as a diploma order. The last date to file the application is listed in the front inside cover of the class schedule for each regular semester. Candidates for August graduation must file their requests prior to registration for the spring semester.

Students who fail to complete requirements as planned must update the application for a graduation check and do so by the appropriate deadline. An additional fee is required to change the graduation date.

Since Cal State Fullerton is on the semester basis, master's degree programs are ordinarily completed in January and June. A student who wishes to complete requirements during the summer must obtain written approval prior to summer term on a form available in the Graduate Studies Office. The approved form must be returned to Graduate Studies during the spring semester.

The effective date of graduation will be the last day of the specific term in which requirements are completed.

Commencement ceremonies are held only at the end of the spring semester. Students completing requirements at the end of the fall and spring semesters and during the following summer may participate in those ceremonies. Information concerning commencement activities is sent to students by the Registrar during the final semester. Arrangements for cap, gown and hood rental are made in the campus bookstore, Titan Shops.

### **GRADUATE ACADEMIC STANDARDS**

University Grade-Point Average

A graduate degree student is expected to earn a 3.0 average in all units subsequent to admission to the program. In addition, a graduate degree student must earn a 3.0 average in all 400- and 500-level courses taken in the student's department or program (including 400- and 500-level program prerequisites). Any 400- and 500-level course taken only to satisfy credential or certificate program requirements shall not be considered applicable.

### Study Plan Grade-Point Average

The 30 or more semester units of approved study plan course work, including transfer work, required for the degree must be completed with a 3.0 (B) minimum gradepoint average. Only grades of A, B, or C are considered satisfactory for study plan courses. If a student receives a grade less than a C on a study plan course, the course must be repeated and passed with a grade of C or better. A course may be repeated only once. In extenuating circumstances, the student can petition the Office of Graduate Studies to add another course to the approved program with unit value equivalent to that of the course in which the unsatisfactory grade was received.

If a student approaches the completion of the degree requirements with less than a 3.0 average, a request may be made for a change in the study plan to

- a. add no more than six units of course work in order to achieve at least a 3.0 grade-point average, or
- repeat no more than six units of course work in which a C or lower was earned in order to achieve at least a 3.0 gradepoint average.
- c. A combination of (a) and (b) equal to six

Requests for course work to be added to the study plan or repeated must be approved by the graduate program adviser and Office of Graduate Studies prior to registration (see "Changes in Study Plan"). If the grade-point average at any time falls below such a level that it cannot be raised to a 3.0 within the prescribed limits of course work, this has the effect of disqualifying the student from the master's degree program.

If permission is given to repeat a course, both grades are considered in computing grade-point averages. However, successful

repetition of a course originally passed carries no additional unit credit toward a degree.

When a course is added, the original course stays on the study plan and both grades received shall be used in the calculation of the student's GPA.

### Academic Probation and Disqualification

A graduate student enrolled in a graduate degree program in either conditionally classified or classified graduate standing is subject to academic probation if a cumulative gradepoint of at least 3.0 (grade of B on a fourpoint scale) is not maintained. A listing of students subject to probation is reviewed each semester by the Office of Graduate Studies with the advice of the student's graduate program adviser.

The Office of Graduate Studies, with the advice of the student's graduate program adviser, will disqualify a graduate student who is on academic probation if the student does not, or cannot, raise the study plan and applicable course work cumulative gradepoint average to 3.0 by the completion of the second regular semester (exclusive of interim and summer sessions) following the session in which the cumulative grade-point average failed to meet the minimum 3.0 standard.

A student who has been disqualified from a master's degree program or from a postbaccalaureate credential or certificate program may apply for readmission to that program or to another program after one calendar year following disqualification. A readmitted student must file a new study plan which meets current requirements and policies. Any disqualified student who wishes to use previous course work must have it approved by the Office of Graduate Studies. Disqualification will remove the student from graduate standing and prevent further enrollment in the university.

A graduate student may also be placed on probation or may be disqualified for reasons other than cumulative grade-point average. These reasons include repeated withdrawal, failure to progress toward an educational objective, non-compliance with an academic requirement, and inappropriate behavior as defined in the Student Bill of Rights and Responsibilities, and in the Academic Dishonesty sections of this catalog (see "University Regulations").

A postbaccalaureate student (credential, unclassified or undeclared status) will be subject to academic probation if the cumulative grade-point average falls below a 2.5

average. A postbaccalaureate student on probation will be subject to disqualification if the cumulative grade-point average is not raised to 2.5 the semester after being placed on probation. Disqualification may be either from further registration toward a postbaccalaureate credential or certificate program, or from further enrollment in the university as determined by the director of Graduate Studies.

### Declassification

Graduate students in classified graduate standing shall be declassified upon the recommendation of the appropriate academic unit, with a change to postbaccalaureate standing, unclassified, when one or more of the following conditions exist:

- 1. The student's request for declassification has been recommended for approval by the graduate committee.
- The student fails to maintain the gradepoint average required in the master's degree program.
- The student has failed to demonstrate a satisfactory level of scholastic competence and fitness.
- 4. The student fails to complete the degree within the prescribed time limit.

A recommendation for declassification is sent to the Graduate Studies Office by the graduate program adviser for the particular degree.

graduate
s at this old ment

### RESIDENCE REQUIREMENT

A student is considered to be in residence when registered during regular semesters at this university. Of the minimum of 30 semester units of approved course work required for the master's degree, not less than 21 shall be completed in residence at this institution. For programs 42 units or larger, at least half the units must be taken in residence. Approved units earned in summer sessions may be substituted for regular semester unit requirements on a unit for unit basis. Extension credit may not be used to fulfill the minimum residence requirement.

### CONTINUOUS

A graduate student with a graduate degree objective is required to maintain continuous enrollment during regular semesters (summer sessions and intersession excluded) until award of the degree. This policy is designed to eliminate the need for readmission to the university, provide opportunity for continuous use of facilities, including the library, and assure the development of an integrated program, adequately supervised, and effectively completed within the time limitations allowed by regulations.

Unless granted an approved leave of absence, a graduate student who fails to register each semester has discontinued

enrollment in the graduate degree program. If the student wishes to resume studies, it will be necessary to reapply for admission to the university and to the degree program and meet any changed or additional requirements approved in the interim.

Students who may have completed all course work, but who may not have satisfactorily completed a comprehensive examination or other requirement, are expected to maintain continuous enrollment until award of the degree.

A graduate student who finds it impossible to attend during a certain semester and is not eligible for a leave of absence, must register in Graduate Studies 700. Registration in this course is restricted to conditionally classified or classified graduate students. It carries no unit credit and does not require class attendance. Registration in this course in each semester when no other course work is taken will be necessary until award of the degree.

Similarly, Credential Studies 701 is available for students with a credential-only objective who find it impossible to enroll in course work and are not eligible for a leave of absence.

### LEAVE OF ABSENCE

Graduate degree or credential students may request a leave of absence for up to one year. Conditionally classified or classified graduate students qualify for a leave if they are in good academic standing and have completed at least six credit hours' work toward the degree in residence at Cal State Fullerton. Students with a credential-only objective qualify if they have completed at

### GRADUATE ENROLLMENT POLICIES

Residence Requirement

Continuous Enrollment

Leave of Absence

Study Load

Extended Education

Enrollment in 500-Level Courses

by Seniors

Postgraduate Credit

Transfer Credit Policy

least one semester of course work in good academic standing. Forms to request a leave of absence are available at the Admissions and Records information counter or in the Graduate Studies Office.

Any one of the following circumstances may be grounds for requesting a leave of absence:

- Illness or disability (permanent or temporary) or similar personal exigencies including pregnancy which make it impossible or inadvisable for a student to register for classes.
- Activities that enhance a student's professional career objectives.
- Active duty in the armed forces of the United States.
- 4. Other reasons at the discretion of the Director of Graduate Studies.

After review by the Graduate Studies Office, the academic unit (where applicable), and the Registrar's Office, a response is mailed to the student.

A first-time leave of absence of one semester only will normally be granted upon request for students who qualify and will not require an application for readmission to the university. Registration materials for the semester following the leave will be sent to the student.

Students requesting a subsequent leave or a leave longer than one semester are required to provide appropriate documentation (e.g., doctor's recommendation, verification of employment). Such requests must also be endorsed by the program adviser.

A leave granted to a degree objective student preserves the election of curriculum rights regarding catalog requirements. However, leaves of absence do not change the time limit for completion of the degree. For credential students, a leave granted by the university does not exempt them from new requirements imposed by the State regardless of the catalog year and also does not extend time limitations imposed by the State for completing specific teaching credential requirements.

### STUDY LOAD

To qualify for full-time enrollment cetification by the university, graduate students must carry a study load of 12 units of course work a semester or nine units of which six are in 500-level courses. A normal full-time load in summer session is one and one-third units per week of instruction. The maximum study load for students working toward a master's degree is 12 units per semester; in exceptional cases, however, a student may take more with the approval of the graduate program adviser. Forms to request excess units are available in the Graduate Studies Office or from the department program adviser.

### **EXTENDED EDUCATION**

In addition to its regular academic programs, the university offers courses through Extended Education This includes summer session, intersession, extension only courses, and adjunct enrollment. The applicability of credit earned in courses taken through Extended Education is subject to approval by the graduate program adviser and Office of Graduate Studies. Consultation with a graduate adviser before taking any course through Extended Education is strongly recommended.

Any student desiring a master's degree must be admitted to the university and maintain continuous enrollment every fall and spring semester until award of the degree. Enrollment through University Extension does not maintain continuous enrollment.

### Summer Session/Intersession

Appropriate courses taken during the summer session or intersession may be applied to a graduate degree program, provided the courses are approved in advance.

Enrollment in courses taken during summer session or intersession does not constitute admission to the university or enrollment as a continuing student in the university.

### Extension Credit

No more than nine units of extension credit may be applied to a graduate degree. Extension credit is granted for two types of courses: (1) those with an "X" prefix in the Extended Education Bulletin and (2) those taken through adjunct enrollment.

### Adjunct or Open University Enrollment

Adjunct or Open University enrollment through Extended Education permits students who are not formally admitted to the university to enroll in regular university courses, i.e., those courses listed in the university catalog, during fall or spring semesters. Courses taken through adjunct enrollment are included in the nine-unit extension credit limit.

### ENROLLMENT IN 500-LEVEL COURSES BY SENIORS

Undergraduate students may enroll in graduate level courses (500-level) if they:

- have reached senior status (i.e., completed a minimum of 90 semester units)
- b. have the academic preparation and prerequisites required for entry into the course
- c. gain the consent of the instructor.

Students wishing to use 500-level course work taken during their undergraduate degree toward a master's degree should read the following section on Postgraduate Credit.

### **POSTGRADUATE CREDIT**

A graduate student may petition for a maximum of nine units of postgraduate credit for course work (either 400- or 500-level) taken during the undergraduate degree at California State University, Fullerton, if:

- a. the course work was not used to meet any of the university's requirements for the baccalaureate degree (including major, minor or concentration)
- the course work was taken during the twelve months immediately prior to the student's graduation
- the coursework was completed with a grade of B or better.

Petition forms are available at the Admissions and Records information counter. If approved, appropriate notations will be entered on the student's permanent record.

The use of postgraduate course work on a student's graduate study plan is governed by the general regulations for all graduate degrees and must be approved by the program adviser, the appropriate graduate committee and the Office of Graduate Studies.

### TRANSFER CREDIT POLICY

Graduate students may be able to use a limited amount of transfer course work in meeting the requirements for a master's degree. The use of transfer course work on a student's study plan is subject to the following provisions:

- 1. Each course being transferred must:
  - have been taken at an accredited college or university.
  - b. be acceptable for credit toward a graduate degree at the institution where the course work was taken.

- c. have been completed with a grade of B or better.
- d. not have been used in meeting the requirements for another earned degree (either graduate or undergraduate).
- e. have been completed within the student's five-year time period which is required for completion of the requirements for the master's degree at CSUF.
- 2. An absolute minimum of 21 semester units toward any master's degree at CSUF must be in residence units. For master's degrees requiring more than 42 semester units, a minimum of half of the units used on the student's study plan must be in residence units. Residence units are granted for courses taken at the university during regular sessions of fall and spring and any special session.
- Use of transfer work on a student's study plan is subject to all other policies concerning study plan course work; e.g., fifty percent must be graduate level work, no correspondence course work, no credit by examination, no courses with nontraditional grades.
- 4. In all cases, the use of transfer course work on a student's study plan is subject to the acceptance and approval of the academic unit's graduate adviser and the Office of Graduate Studies. Course work taken at another institution after admission to CSUF as a graduate student is rarely accepted for credit toward a master's degree and can only be accepted if the student has received prior approval of both the graduate adviser and the Office of Graduate Studies.
- All approved transfer units and grade points will be entered on the CSUF transcript at graduation.

# theses and projects

THESES AND PROJECTS

Definition

Annual Thesis Award

General Regulations

Format Guidelines and Style Manuals

Theses Typists

Deadlines

Final Procedures

### DEFINITION

A thesis is defined as the written product of a systematic study of a significant problem. It identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. Normally, an oral defense of the thesis is required.



A project is a significant undertaking appropriate to the fine and applied arts or to professional fields. It also evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written abstract that includes the project's significance, objectives, methodology and a conclusion or recommendation. An oral defense of the project may be required.

### **ANNUAL THESIS AWARD**

An award of \$1000 along with an engraved plaque will be given each year to the student whose thesis represents the highest standard of scholarly accomplishment as

determined by a panel of judges chosen from emeriti professors. Interested students should contact the Graduate Studies Office or their program adviser for further information on eligibility and deadlines. Finalists from each school may also be recommended for Honorable Mention by the judges; these will receive a certificate of Honorable Mention and a \$100 cash award.

### **GENERAL REGULATIONS**

Of the minimum of 30 semester units of approved course work required for the master's degree, no more than six are allowed for a thesis.

When a thesis is required, the library is to be provided with the approved original copy, or a fully acceptable duplicated copy, in the approved binding, and an acceptable microfilm of it. An abstract accompanies the thesis and will normally be published in the University Microfilms International journal, Masters Abstracts. Copies are thereby made available for order by interested scholars.

An approved copy of the thesis or project may also be required by the student's academic department. Students should check with their graduate program adviser as to whether a copy is needed by the department as part of the requirements for graduation.

When a project is required, it will be filed with the academic unit offering the degree program. Some record of the project, or the project itself, is preserved in the academic unit and, when appropriate, in the library.

Although a minimum of three faculty members supervise and approve the thesis, it is possible for a qualified person who is not a regular university faculty member to serve as a visiting examiner and join in the approval of the written record. This person serves as the fourth member of the committee.

Title to theses (and projects when filed in the library, as above) passes to the university upon their acceptance by the evaluating faculty.

Variations from procedures and regulations should be referred to the Office of Graduate Studies for approval.

# FORMAT GUIDELINES AND STYLE MANUALS

All-university format guidelines are included in a thesis manual that has been developed to assist the student in preparation of a thesis. Copies are available in the Office of Graduate Studies. It is the student's responsibility to make certain that the requirements are met. The student is strongly advised to become familiar with the instructions in the manual. Theses from the library or departmental offices should not be used as examples of correct format.

The academic unit, through the student's adviser and/or committee, is responsible for the academic content and English usage in the thesis and for the student's correct use of forms of documentation and bibliography. In addition to the university format guidelines, each academic unit may select a supplementary style manual to be followed in matters of documentation and bibliography. Students should consult their academic program adviser or thesis committee chair concerning the style manual used.

If the supplementary style manual presents regulations that conflict with the alluniversity format guidelines published in the thesis manual, the university regulations take precedence.

Some graduate programs require style manuals or guides designed for journal articles. Although these are helpful for abbreviations, tables, figures and footnoting, as well as other purposes, students should be aware of the difference between a thesis and an article and make appropriate adaptations, approved by the graduate program adviser.

If the academic unit does not recommend a specific style manual, the student should refer to A Manual for Writers of Term Papers, Theses, and Dissertations (Fifth Edition) by Kate I. Turahian

#### THESIS TYPISTS

The student makes all necessary arrangements for the typing of the thesis. A list of thesis typists is available in the Office of Graduate Studies. The university Career Planning and Placement Center also maintains a listing of students and others who have indicated their availability for typing assignments. An experienced typist is strongly advised, although the university does not endorse or recommend individual typists.

#### DEADLINES.

Adequate time should be allowed for typing, reading and approval by the adviser, the committee members, and the university thesis reader.

It is recommended that the academic area sponsoring the degree program require that the final version of the thesis be submitted for approval at least six weeks prior to the last day of classes of the appropriate semester. The deadline for submission to the university thesis reader is two weeks prior to the last day of classes. For summer completion, the student should check with the academic unit and the Office of Graduate Studies for appropriate deadlines. The Office of Graduate Studies must receive notification from the campus bookstore by the last day of final examinations for the appropriate semester or session that the thesis has been deposited there and the fees paid. Ample time should be allowed for any special arrangements, such as duplication of the thesis by the campus bookstore or elsewhere, prior to the deadline.

#### **FINAL PROCEDURES**

1. Approval Signatures: When the final draft is completed, the student obtains signatures on the approval page of all of the members of the committee. The title/approval page may be photocopied onto the correct paper stock; however, the signatures must be original. Photocopied signatures are not acceptable for binding or microfilming. The signatures must be in black ink. If there is a disagreement within the committee concerning the acceptability of the thesis, the approving signatures of a majority of the committee will be sufficient. Nonavailability of one member of the committee is not an adequate reason for acceptance of signatures by less than the

- full committee. No changes or additions will be allowed after the final signatures have been obtained. The student should arrange for at least three original title pages to be signed by the committee members. (One original is submitted to the bookstore with the thesis or project; the other originals may be used as the student's personal copy and for the departmental copy.)
- 2. University Thesis Reader: The thesis is ready for review by the university thesis reader after the faculty have signed off and the thesis has been typed in its final form. One unbound copy of the thesis including the original approval page is taken to the Office of Graduate Studies for review by the thesis reader for conformity to all-university format guidelines. The copy submitted to the Graduate Studies Office may be a photocopy provided it is copied on the correct paper stock. The student will be notified of any revisions or corrections that need to be made. Final approval on format is given by the Office of Graduate Studies on the "Thesis Approval Form."
- Binding and Microfilming: The student takes the approved copy of the thesis. two signed title and approval pages, and the signed Thesis Approval Form to the campus bookstore and pays the appropriate fees. The bookstore arranges for the binding of the thesis by a local bindery and other services by University Microfilms International (UMI). Once submitted and receipted, the thesis may not be withdrawn by the student from the campus bookstore. The campus bookstore sends the approved original or duplicated copy (including the original signed approval page) to University Microfilms International for filming and publication of the abstract, and upon its return sends it to the bindery.

An agreement is normally completed for UMI to publish the abstract in Masters Abstracts, prepare a negative microfilm, and sell microfilm or xerographic copies to interested scholars. Arrangements for copyrighting are also possible, if desired, through UMI.

 Notification for Award of the Degree:
 The grade for the thesis is reported in the usual manner to the Office of the Registrar by the appropriate faculty. The campus bookstore notifies the Office of Graduate Studies that the approved thesis has been deposited, the fees paid, and the agreement for microfilming and publication of the abstract completed by the student.

5. Depositing of Thesis in Library: When the thesis is returned by the bindery, the bound copy is sent by the university bookstore to the library for circulation.

One set of the slides or separately mounted illustrative material is housed with the bound copy. The second set is placed in the university archives with the microfilm copy.

There may be additional steps for individual students in particular programs; for these, consult the program description and the (school, department or program) offering the degree program. checklist

- ☐ = Action initiated by student (as indicated below)
- ◆ = Action initiated by the University

#### 1. ADMISSION TO GRADUATE STANDING: CONDITIONALLY CLASSIFIED

- Apply for admission
- Declare objective(s), using precise codes on the application form
- ☐ Receive application acknowledgement from the Admissions Office
- Request two sets of official transcripts of all previous college-level course work attempted to be sent to Admissions Office
- ☐ Take tests, if required by program, and order test scores sent to Cal State Fullerton, designating appropriate academic unit on the test registration form
- ☐ Consult appropriate academic unit for advisement
- Provide appropriate academic unit with any other supporting statements or materials, as required
- ♦ Recommendation for admission made by academic unit to Admissions Office
- Receive notification of admission from Admissions Office

#### 2. GRADUATE STANDING: CLASSIFIED

- ☐ Complete any course prerequisites and/or remove deficiencies
- Apply for classified standing in the academic area offering the particular program prior to completion of nine units of study plan course work
- Consult appropriate academic unit for advisement, including development of official study plan
- Provide appropriate academic unit with any other supporting statements or materials, as shown in program descriptions in this catalog
- ☐ Take tests if required by program, and order test scores sent to Cal State Fullerton, designating appropriate academic unit on the test registration form
- Recommendation made by academic unit to the Office of Graduate Studies
- Receive notification of classified standing being granted from Graduate Studies when the study plan is sent, showing approval by the Office of
- If not received within a reasonable length of time, call the academic unit sponsoring the degree or Graduate Studies.

#### 3. COMPLETION OF REQUIREMENTS

- Apply for a graduation check and advancement to candidacy prior to the beginning of the final semester and no later than the deadline initiating university review and formal approval by faculty. The form is available at the Admissions and Records information desk, the Graduation Unit and the Graduate Studies Office. A graduation and diploma fee must be paid when filing the request with the university cashier.
- ☐ Consult appropriate academic unit for advisement
- ☐ Complete written and/or oral examination, if required
- ☐ Complete thesis or project, if applicable
- Obtain approval of committee
- Obtain approval of university thesis reader (thesis only)
- Deposit approved copy of thesis and make arrangements for binding, microfilming and publication of the abstract in the campus bookstore by the applicable deadline
- Final, approved study plan, with recommendation, sent by appropriate academic unit to Office of Graduate Studies
- Preliminary approval, pending adequate grades, and completion of any other requirements, granted by Office of Graduate Studies.
- Deposit approved copy of thesis or project in academic department (if required)
- Complete all general and specific requirements, other than final course examinations, by the last day of classes, in order to assure granting of the degree by the end of the semester
- Final verification of completion of requirements sent by the Graduate Studies Office to the registrar
- Receive notification of award of degree from registrar approximately eight weeks after the end of the semester

#### 4. COMMENCEMENT

- $oldsymbol{\square}$  Make appropriate arrangements for cap, gown and hood rental in the campus bookstore
- Commencement information sent by the Registrar's Office

Preliminary approved study pear, with recommendation, sure by appropriate acceptance to the to Office of Graduate Studies
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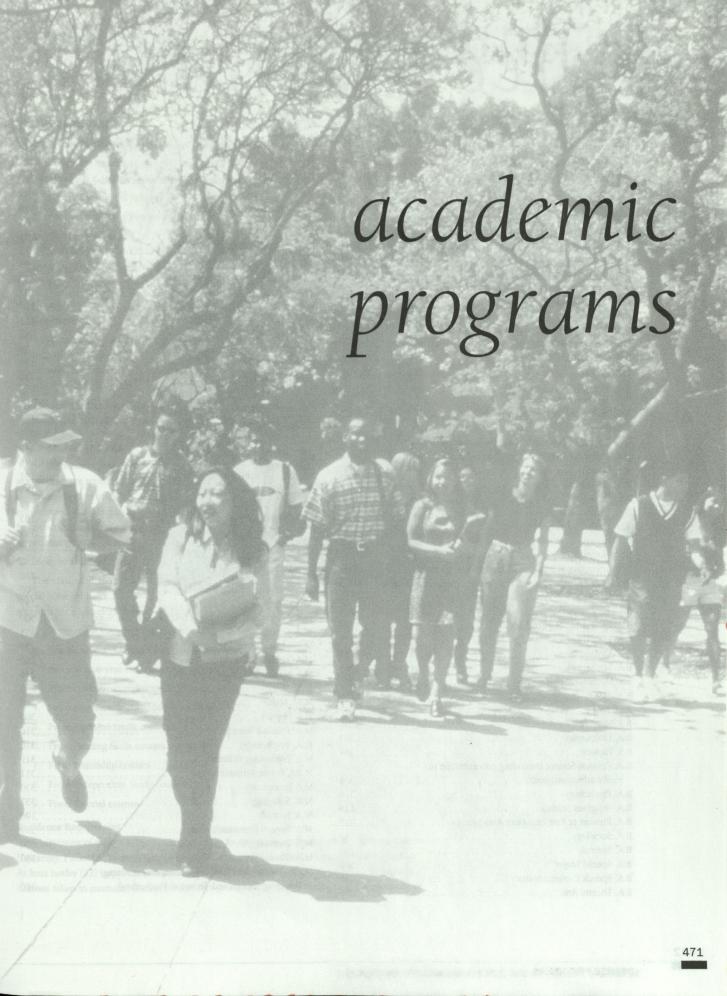
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#### 4, COMMENCEMENT

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# degree programs

B.A. American Studies57	B.F.A. Theatre Arts (Musical Theatre)
B.A. Anthropology	B.A. Women's Studies
B.A. Art	The following master's degree programs are offered:
B.F.A. Art	M.S. Accountancy
B.S. Biochemistry	M.A. American Studies
B.S. Biological Science	M.A. Anthropology
B.A. Business Administration92	M.A. Art
B.A. Chemistry	
B.S. Chemistry	M.EA. Art
B.S. Child and Adolescent Development	M.A. Biology
B.S. Civil Engineering	M.B.A. Business Administration
B.A. Communications	M.S. Chemistry
B.A. Communicative Disorders	M.S. Civil Engineering
B.A. Comparative Literature	M.A. Communications
B.S. Computer Science	M.A. Communicative Disorders
B.A. Criminal Justice	M.A. Comparative Literature
B.A. Dance	M.S. Computer Science
B.A. Economics	M.S. Counseling
B.S. Electrical Engineering	M.A. Economics
B.S. Engineering (Engineering Science)	M.S. Education (with concentrations in bilingual/bicultural education
B.A. English	[Spanish-English], elementary curriculum and instruction, reading,
B.A. Ethnic Studies (option in Afro-Ethnic Studies)	educational administration,
	special education
B.A. Ethnic Studies (option in Chicano Studies)	M.S. Education (TESOL)
B.A. French	M.S. Electrical Engineering
B.A. Geography	M.S. Engineering (Engineering Science)
B.S. Geology	M.A. English
B.A. German	M.S. Environmental Studies
B.S. Health Science	M.A. French
B.A. History	M.A. Geography
B.S. Human Services	M.A. German
B.A. International Business with a concentration in	M.A. History
French, German, Japanese, Portuguese, Spanish or Chinese	M.A. Interdisciplinary Studies500
B.A. Japanese	M.S. Kinesiology
B.S. Kinesiology	M.S. Library and Information Science (San Jose State)500
B.A. Latin American Studies	M.A. Linguistics
B.A. Liberal Studies247	M.S. Management Science
B.A. Linguistics	M.A. Mathematics
B.A. Mathematics	M.S. Mechanical Engineering
B.S. Mechanical Engineering	M.A. Music
B.A. Music	M.M. Music
B.M. Music	M.S. Physics
B.S. Nursing	M.A. Political Science
B.A. Philosophy	M.A. Psychology
B.S. Physics	M.S. Psychology (Clinical)
B.A. Political Science (including concentration in	M.P.A. Public Administration
public administration)	M.A.T. Science
B.A. Psychology	M.A. Sociology
B.A. Religious Studies	M.A. Spanish
B.A. Russian & East European Area Studies	M.A. Speech Communication
B.A. Sociology	M.S. Taxation
B.A. Spanish	M.A. Theatre Arts
B.A. Special Major	M.F.A. Theatre Arts (with concentrations in Acting,
B.A. Speech Communication	Directing, Design and Technical Production)
B.A. Theatre Arts	Directing, Design and Technical Floatienon

# graduation requirements

#### **UNIT REQUIREMENTS**

#### A. Total Unit Requirements

The minimum number of semester units necessary for a bachelor's degree, exclusive of remedial courses (i.e., courses numbered 0-99), is as follows:

- 1. For the Bachelor of Arts degree . .
- 2. For the Bachelor of Fine Arts degree .
- 3. For the Bachelor of Science degree. 124-135
- 4. For the Bachelor of Music degree . . . . 132

#### B. Upper-Division Requirement

A minimum of 40 semester units of upper-division course work is required for any CSUF bachelor's degree. Courses offering upper-division credit are those numbered at the 300- and 400-levels.

All units from upper-division courses are applicable to the upper-division units requirement, including units from courses in the major, the minor, and general education.

#### C. Special Unit Totals

The maximum number of special semester units

accepted for a bachelor's degree is as follows:

1.	Transferable units from community or junior colleges
2.	Transferable units from a four-year university or college or from a combination of
	two and four-year institutions for degrees requiring 124 units
3.	From credit by examination
4.	From extension & correspondence courses
5.	From credit/no credit courses
	From Reading Skills courses numbered4
7.	From Internship courses
8.	From Independent Study courses
9.	From Tutorial courses

#### Residence Requirement

A minimum of thirty (30) semester units must be earned in courses taken at California State University, Fullerton. Twenty-four (24) of these units must be earned in upper-division courses. At least twelve (12) upper-division semester units in the major must be taken at this institution. Courses taken in extension (except for summer session and intersession courses offered as part of

# GRADUATION REQUIREMENTS FOR THE BACHELOR'S DEGREE

Unit Requirements
Grade-Point Average Requirements
Distribution of Requirements
Graduation Requirements Check



the special sessions program) and units earned through credit by examination may not be used to fulfill these requirements.

# GRADE-POINT AVERAGE REQUIREMENTS

Three grade-point averages, each 2.0 or higher, are required for graduation:

- A. An average based on all units attempted, including those attempted at other institutions.
- B. An average based on all units attempted at CSUE
- C. An average based on all units attempted in the major.

#### **DISTRIBUTION OF REQUIREMENTS**

#### A. General Education

A minimum of 51 semester units are needed to complete CSUF's general education requirements. See the "General Education" section of this catalog.

#### B. Major

The unit requirement in a major varies substantially from major to major. Some majors require as little as 33 semester units while others require as much as 104 units. Refer to the Department listings for the specific requirements of any particular major.

# C. Upper-Division Baccalaureate Writing Requirement

The university requires that every person completing a bachelor's degree under 1980-81 and later catalog requirements, demonstrate writing ability acceptable for graduation. The upper-division writing requirement has two parts; students must satisfy each:

Upper-division course requirement: Each major requires that students pass a specially designated upper-division course or courses of at least three semester units.

Examination requirement: The university faculty requires that each student pass the University Examination in Writing Proficiency (EWP), which has been designed to measure writing ability.

Courses. The University Board on Writing Proficiency must certify the course or courses that each major department designates to fulfill the requirement. Departments and programs may specify either a single course of at least three units which involves intensive instruction in writing, or two or more courses (a total of at least six units) in which

students are required to write one or more lengthy papers, or several shorter ones, which involve the organization and expression of complex ideas. In these courses students will be given careful and timely evaluations of their writing and suggestions for improvement. An assessment of writing competence will be included in determining the final course grade.

Students must pass these courses with a grade of C or better. A list of courses designated for each major will appear in the class schedule each semester.

Examination. After completing 60 units toward the baccalaureate, students must take the University Examination in Writing Proficiency (EWP). The EWP consists of two parts, a machine-scored test of Standard Written English, and a 90-minute essay which is evaluated by faculty readers. Students who fail the examination may retake it until they pass it. A limited number of students who have failed the EWP two or more times may enroll in English 199, Intensive Writing Review. Credit in English 199 will be equivalent to passing the examination. This course will not count toward graduation requirements, nor will it satisfy the upperdivision writing course requirement described above. Information about registration for the EWP and testing dates is published in the class schedule each semester.

Petitions. In certain cases, students may petition the University Board on Writing Proficiency for exemption from or modification of the requirement.

- Transfer students and candidates for a second baccalaureate may be certified as meeting the requirement after they have submitted to the Board acceptable evidence of having completed the equivalent to CSUF's upper-division requirement.
- Students may petition for substitution of an alternative to the EWP when exceptional circumstances, e.g. a clinically identified learning disability, make the examination inappropriate. Petitions must include documentation of the special circumstances and propose specific alternative means of demonstrating writing proficiency.

#### D. Minors

A minor is a means by which students can enrich their academic preparation through concentrated study of a discipline related to, or different from, their declared major. Although students can pursue multiple majors, many decide that declaring a major and a minor is a more desirable choice. A minor provides a structured selection of courses to augment or complement the studentis major by broadening a studentis academic experience or serving as preparation for a specific career. A minor can extend the studentis knowledge in two related areas (e.g., English and Speech Communication, Anthropology and Foreign Languages, Sociology and Womenis Studies) or in two disparate ones (e.g., Business Administration and Computer Science, Economics and Foreign Languages, Mathematics and Psychology). A minor can also enable students to systematically explore fields of knowledge about which they are curious or enthusiastic. Students may wish to consult with an adviser in their major department for recommendations of suitable minor fields of study

A minor is not required for the baccalaureate; however, students may elect to complete one or more minors from those available and have that noted on their records. In completing the requirements for a minor, a minimum of twelve (12) units, of which at least six (6) must be upper division, must be distinct and different from the units used to complete the requirements of the major. Any units above this minimum requirement which can be used to satisfy both the requirements for the minor and for the major may be double counted. General education courses, however, may be used to meet minor requirements.

Below is a list of currently approved minors Afro-Ethnic Studies American Studies Anthropology Art Asian Studies Asian American Studies Biotechnology **Business Administration** Chemistry Chicano Studies Child Development Christian Studies Computer Science Criminal Justice Economics English

French Geography Geology German Gerontology

Gerontology
Health Promotion

History

Human Services

International Politics

Japanese

Jewish Studies

Kinesiology

Latin American Studies

Linguistics

Management Information Systems

Mathematics

Mathematics for Teacher Education

Military Science

Music

Peace Studies

Philosophy

Physics

Political Science

Portuguese

Psychology

Public Administration

Religious Studies

Sociology

Spanish

Speech Communication

Women's Studies

#### E. Electives

After fulfilling the requirements in general education, and a specific major (and possibly a minor), each student is free to choose the rest of the courses needed to complete the semester units required for graduation. Different majors vary considerably in both the number of units they require in their own and related fields. They also vary considerably in the amount of latitude or choice they permit in selecting courses to satisfy the major requirement. The general education requirement encourages freedom of choice within the natural sciences, social sciences, arts and humanities, and basic subjects. Students at the university use their electives to broaden their general education, deepen some aspect of their specialties, pursue work in related fields, and satisfy curiosities and enthusiasms for particular subjects or areas of interest.

Advisement on general education and electives is provided by the Academic Advisement Center.

#### F. Multiple Majors and Second Baccalaureate Degrees

Within the units required for the baccalaureate it is possible for a student to complete the requirements for more than one major within one degree (for example a B.S.) when the additional major is within the same degree (in this case, another B.S.). At least 24 units, including 12 at the upper-division level, in each bachelor of arts major, or 36 units, including 18 at the upper-division level, in each bachelor of science major, must be applied exclusively to the respective major and may not be used to meet requirements in other majors or in general education. The student shall declare the additional major with the appropriate department not later than the beginning of the studentis final year of study. The completion of additional majors will be noted at the time of graduation by appropriate entries on the academic record and in the commencement program.

It is possible for a student to complete a major in one degree (for example a B.S.) concurrently with an additional major from a different degree (for example a B.A.). This process is possible as long as the unit restrictions mentioned in the preceding paragraph are met. If the student adheres to the rules about units and how they are counted, the student will then choose which degree he or she will receive, with that degreeis major being noted on the diploma (for example, B.A. in History). The completion of the second major will be noted on the studentis academic record. The university does not award two degrees for multiple majors that are completed concurrently.

Second baccalaureate degrees:

First degree completed elsewhere, second at Fullerton.

Students seeking a bacheloris degree from Fullerton after having received a baccalaure-ate from another institution may qualify for graduation with the approval and recommendation of the faculty upon completion of the following:

(1) General Education requirements:
Students holding a baccalaureate degree from an accredited institution will be held to (a) the breadth requirements of Executive Order 338, i.e., 12 units in each of the areas of arts and humanities, social sciences, and math and science, (b) the statutory requirements and (c) the

English Writing Proficiency requirements.

Students will not be held to specific

CSUF categories or courses.

- (2) all requirements in the major field of study
- (3) residence and scholarship requirements

Two baccalaureates from Fullerton. With the approval and recommendation of the faculty, a student may qualify for a second baccalaureate under the following circumstances:

- a minimum of 30 units have been earned in residence after the first degree has been granted.
- (2) a minimum of 24 upper-division units are included among the 30 units mentioned above
- (3) a minimum of 12 units must be offered by the department in which the second degree is being sought
- (4) two or more degrees are not awarded at the same time

Units included in second baccalaureate programs may not apply to graduate degrees or credential programs.

#### **GRADUATION REQUIREMENT CHECK**

A candidate for graduation must file an application for a graduation requirements check before the first day of instruction of the semester prior to the semester in which the student expects to graduate. The graduation and diploma fee is required when the application is filed. Application forms are available at the Admissions and Records information counter and in the graduation unit.

Candidates for the baccalaureate should refer to the semester class schedule for application filing dates. A senior should have completed at least 100 units (including the current work in progress) and a substantial portion of the major requirements before requesting a graduation check. If the candidate does not complete the requirements in the semester indicated, a change of graduation date must be filed in the Office of Admissions and Records.

#### Faculty Approval and Recommendation

Under provisions of the Academic Senate, the Office of Admissions and Records publishes a list of degree candidates twice a year: in the fall and in the spring (for both spring and summer graduates). After review and approval by the faculty, and upon verification

of the completion of requirements, diplomas are issued with the last day of the respective term as the official date of graduation.

Annual commencement exercises are held at the end of the spring semester for those who completed degree requirements mid-year and for those completing degree requirements in the spring semester or summer session. The president of the university, with the authority of the Board of Trustees, confers all degrees, subject to the completion of remaining requirements.

Note: Students completing bachelor degree requirements who wish to continue their studies at the university for postbaccalaureate or graduate degree objectives must apply for admission declaring their new objectives.

# general education

#### INTRODUCTION

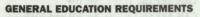
All students beginning studies Fall 1987 or later must complete a minimum of 51 semester units of general education courses selected in accordance with the pattern designated on the following pages. General education courses must be selected from an approved list. Students should refer to the latest university Schedule of Classes for the most up-to-date list of approved classes. A student who has a break in enrollment for more than one semester in any calendar year may be liable for new catalog requirements.

CSUF students may complete lower division General Education requirements at a community college. In choosing equivalent courses, students must follow the CSUF General Education plan and not the plan of the community college. Questions can be directed to the CSUF Academic Advising Center, University Hall 179.

A score of T145 or higher on the English Placement Test (EPT), or completion of English 99 (EPT test required) with a grade of C or better, is a prerequisite for enrollment in courses in category I.A.2. Written Communication, for all students except those with an exemption.

A score of 550 or higher on the Entry Level Mathematics

(ELM) examination is a prerequisite for enrollment in courses in Category II.A.4. Mathematics for all students except those with an exemption.



Unit Requirements

51 total units including:

- 9 units upper-division taken as a junior or senior
- 9 units at CSUF
- 3 units in cultural diversity (courses marked with a star \*)
- 9 units maximum from one department
- Each course counts in one category only except those meeting Category V (cultural diversity)

#### Academic Standards

- Letter Grade required
- "C" or better required Categories I.A,B,C, and III.A.1
- CR/NC allowed if it is the only grade option available

#### GENERAL EDUCATION

General Education Requirements
Certification Policy
California Articulation Numbers (CAN)
Goals of General Education
General Education Course Requirements

#### Courses in Your Major

- Courses offered by the department of the student's major may NOT be used to fulfill the unit requirements of III or IV with the exception of categories offering choices from only one department.
- Courses that are cross-listed meet general education category requirements for all majors except those in the home department of the cross-listed course. The "home" department is the one under which the course description appears in the catalog. For example, ANTH is the "home" department for ANTH/CPRL 305; therefore, it may not be used by Anthropology majors to meet G.E. requirements.
- Upper-division courses offered by the department of the student's major may not be used for general education credit.

#### Transfer Students

- Consult the G.E. checklist form issued to you at admission for completing your G.E. Program
- IGETC certified transfer students are required to take 9 units of upper-division coursework from Categories III.A.3., III.B.3., III.C.2. and IV. with the following conditions:
  - No more than 6 units from any one category
  - No more than 6 units from any one department
  - —No units from the department of student's major
  - —Minimum of 3 units in cultural diversity if not met prior to transfer. (Courses meeting this requirement are marked with a star \*.)

Students who have checklists or worksheets for "Plan B" G.E. requirements (entered or transferred between Fall 1987 and Spring 1999) should refer to the following chart to find corresponding lists of courses that satisfy General Education requirements:

quirements.	
GE Plan B	GE
(Fall 1987	Requirements
Spring 1999)	(Fall 1999
	or later)
I.A.	Same
I.B.	Same
I.C.	Same
II.A.	Same

II.B.I.	Same
II.B.2.	Same
III.A.1.	III.A.2.a. or b.
III.A.2.	III.A.2.c.
III.A.3.	Same
III.A.4.	III.A.1.
III.B.1.	Same
III.B.2.	Same
III.C.1.	Same
IV.A.1.	III.B.3.
I.V.A.2.	III.C.2.
IV.B.	IV.
Cultural	Same
Diversity	(courses are
	marked with a
	star*)

Students under earlier G.E. plans or who need help with the above chart should contact the Academic Advisement Center, UH-179, x3606.

#### **CERTIFICATION POLICY**

Under provisions of Title 5 and Executive Order 595, accredited colleges and universities may certify the completion of part of the 48-51 units required in general education. Within the policy of the Board of Trustees, Cal State Fullerton will accept such certification of general education up to a maximum of 39 semester units, but may accept no more in general education than the number of units required in each area.

Transfer students who are certified in any category with fewer than the required units will be subject to additional units and will be permitted to take the additional units in upper-division categories.

#### Intersegmental General Education Transfer Curriculum (IGETC)

All lower-division Cal State Fullerton general education requirements may be satisfied by the completion in its entirety of this transfer curriculum at a California community college campus. Information about IGETC is available at each campus. Upperdivision general education requirements for IGETC certified transfers are as follows:

Nine units of upper-division course work from Plan B categories III.A.3., IV.A.1., IV.A.2., and IV.B. with the following conditions:

- No more than six units from any one category
- No more than six units from any one department
- No units from the department of the student's major

 A minimum of three units of a "cultural diversity" (asterisked) course, if not met prior to transfer.

#### **CALIFORNIA ARTICULATION NUMBER**

California State University, Fullerton is authorized to cross-reference certain courses with a California Articulation Number (CAN). This is a system of equating courses between campuses in California. It is used by an increasing number of community colleges and four-year universities and colleges to identify some of the transferable, introductory courses in several academic disciplines.

The system assures students that CAN courses noted in the catalog of one campus will be accepted in lieu of the comparable CAN course on another participating campus. An example is our Anthropology 101 Introduction to Biological Anthropology; CAN ANTH 2 is accepted in lieu of courses similarly marked in other university or college catalogs.

The California Articulation Numbers are listed in parentheses by the course descriptions in the catalog. A listing of courses currently approved for CAN follows:

California	Cal State
Articulation	Fullerton
Number	Courses
CAN ANTH 2	Anthro 101
CAN ANTH 4	Anthro 102
CAN ANTH 6	Anthro 103
CAN ART 2	Art 201A
CAN ART 4	Art 201B
CAN ART 6	Art 106A
CAN ART 8	Art 107A
CAN ART 12	Art 216A
CAN ART 14	Art 103
CAN ART 16	Art 104
CAN ART SEQ A	Art 201 and 201B
CAN BIOL 4	Biology 261
CAN BIOL 6	Biology 241
CAN CHEM 2	Chemistry 120A
CAN CHEM 4	Chemistry 120B
CAN CHEM SEQ A	Chemistry 120A
	and 120B
CAN DRAM 12	Theatre 276A
CAN DRAM 14	Theatre 285
CAN ENGL 2	English 101
CAN ENGR 2	EG-ME 102
CAN ENGR 6	EG-EE 203 plus 203
CAN ENGR 8	EG-CE 201
CAN ENGR 12	EG-EE 203
	- 1

French 101

French 102

CAN FREN 2

CAN FREN 4

CAN FREN 8	French 203
CAN FREN 10	French 204
CAN FREN SEQ A	French 101 and 102
CAN FREN SEQ B	French 203 and 204
CAN GEOG 2	Geography 110
CAN GEOG 4	Geography 160
CAN GEOL 2	Geological Sci 101
	plus 101L
CAN GEOL 4	Geological Sci 201
CAN GOVT 2	Poli Sci 100
CAN HIST 8	History 170A
CAN HIST 10	History 170B
CAN HIST SEQ B	History 170A and
	170B
CAN HIST SEQ C	History 110A and
	110B
CAN JAPN 2	Japanese 101
CAN JAPN 4	Japanese 102
CAN JAPN SEQ A	Japanese 101 and 102
CAN JOUR 4	Comm 233
CAN MATH 10	Mathematics 115
CAN MATH 16	Mathematics 125
CAN MATH 18	Mathematics 150A
CAN MATH 20	Mathematics 150B
CAN MATH 22	Mathematics 250A
CAN MATH 30	Mathematics 130 A
CAN MATH 34	Mathematics 135
CAN MATH SEQ B	Mathematics 150A
	and 150B
CAN MATH SEQ C	Mathematics 150A
	plus 150B and
	250A
CAN PHIL 2	Philosophy 100
CAN PHIL 6	Philosophy 210
CAN PHYS 2	Physics 211 and 211L
targle med non? The way are	
CAN PHYS 4	Physics 212 and 212L
CAN PHYS 4 CAN PHYS 8	Physics 212 and 212L
CAN PHYS 8	Physics 212 and 212L Physics 225 and 225L
	Physics 212 and 212L Physics 225 and 225L Physics 226 and
CAN PHYS 8 CAN PHYS 12	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L
CAN PHYS 8	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus
CAN PHYS 8 CAN PHYS 12 CAN PHYS SEQ A	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus
CAN PHYS 8 CAN PHYS 12	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus
CAN PHYS 8 CAN PHYS 12 CAN PHYS SEQ A	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226
CAN PHYS 8 CAN PHYS 12 CAN PHYS SEQ A CAN PHYS SEQ B	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and
CAN PHYS 8 CAN PHYS 12 CAN PHYS SEQ A CAN PHYS SEQ B	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and 227 plus 227L
CAN PHYS 8 CAN PHYS 12 CAN PHYS SEQ A CAN PHYS SEQ B	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and 227 plus 227L Psychology 101
CAN PHYS 8 CAN PHYS 12  CAN PHYS SEQ A  CAN PHYS SEQ B  CAN PSY 2 CAN SOC 2	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and 227 plus 227L Psychology 101 Sociology 101
CAN PHYS 8 CAN PHYS 12  CAN PHYS SEQ A  CAN PHYS SEQ B  CAN PSY 2 CAN SOC 2 CAN SPAN 2	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and 227 plus 227L Psychology 101 Sociology 101 Spanish 101
CAN PHYS 8 CAN PHYS 12  CAN PHYS SEQ A  CAN PHYS SEQ B  CAN PSY 2 CAN SOC 2 CAN SPAN 2 CAN SPAN 4	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and 227 plus 227L Psychology 101 Sociology 101 Spanish 101 Spanish 102
CAN PHYS 8 CAN PHYS 12  CAN PHYS SEQ A  CAN PHYS SEQ B  CAN PSY 2 CAN SOC 2 CAN SPAN 2 CAN SPAN 4 CAN SPAN SEQ A	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and 227 plus 227L Psychology 101 Sociology 101 Spanish 101 Spanish 102 Spanish 101 and 102
CAN PHYS 8 CAN PHYS 12  CAN PHYS SEQ A  CAN PHYS SEQ B  CAN PSY 2 CAN SOC 2 CAN SPAN 2 CAN SPAN 4	Physics 212 and 212L Physics 225 and 225L Physics 226 and Physics 226L Physics 211 plus 211L and 212 plus Physics 225 plus 225L and 226 plus 226L and 227 plus 227L Psychology 101 Sociology 101 Spanish 101 Spanish 102

#### THE GOALS OF GENERAL EDUCATION

General education is central to a university education, and should enhance students' awareness of themselves in a complex universe, drawing upon multiple points of view. As a result of general education experience, students should acquire knowledge of diverse disciplinary and cultural perspectives and skill in comparing, contrasting, applying, and communicating effectively these perspectives in tasks considered appropriate to particular courses.

The General Education Program at California State University, Fullerton, is divided into four major categories:

- I. Core Competencies
- II. Historical and Cultural Foundations
- III. Disciplinary Learning
- IV. Lifelong Learning.

These four areas consist of lower-division (100- and 200-level) courses in areas fundamental to a university education and upperdivision (300- and 400-level) courses that draw upon, integrate, apply, and extend the knowledge and skills that are the goals of the lower-division courses.

A fifth category includes goals for learning in the area of Cultural diversity. Student work in categories I through IV must include at least one three-unit course, identified with a star (\*), that meets the learning goals for category V, Cultural Diversity.

The goals of category I, Core Competencies, are essential goals for the entire program of general education. Specifically, general education courses will include student writing assignments appropriate to the course. Writing assignments in General Education courses should involve the organization and expression of complex data or ideas and careful and timely evaluations of writing so that deficiencies are identified and suggestions for improvement and/or for means of remediation are offered. Assessments of the student's writing competence shall be used in determining the final course grade.

The learning goals specified in this document identify ideal student learning objectives for each General Education category and subcategory. Except where otherwise specifically provided for, no single course should necessarily be expected to pursue every goal specified for that course's category or subcategory, but the more goals that a particular course addresses the more appropriate that course will be as a general education offering.

#### I. Core Competencies

Courses in Core Competencies (Oral and Written Communication and Critical

Thinking) include the following overall goals for student learning:

- To organize one's thoughts and communicate them clearly and effectively, using language that demonstrates sensitivity to gender and cultural differences.
- To select and present clearly and effectively information and arguments for a variety of purposes and audiences.
- To recognize and evaluate with rigor the features, functions, and contexts of language that express and influence meaning.
- To compare and contrast with care and accuracy the relative merits of alternative or opposing arguments, interpretations, assumptions, and cultural values.
- To reflect in an open-minded manner on one's own thinking in relation to the ideas of others.
- To work effectively as a member of a collaborative team.

#### A. ORAL COMMUNICATION

Courses in Oral Communication include the following goals for student learning:

- To develop and present a clearly spoken message in English.
- To practice effective listening and speaking in a dialogue.
- To present an oral message clearly and effectively using relevant and adequate supporting evidence.
- To understand the influence of culture and context on oral communication.
- To understand and value difference in communication styles.
- To negotiate cooperative action and solutions to problems.
- To select and use effectively appropriate techniques and materials to support ideas and to motivate and persuade others.

#### **B. WRITTEN COMMUNCIATION**

Courses in Written Communication include the following goals for student learning:

- To develop and present a clearly written message in English.
- To express and advocate ideas clearly and effectively in writing.
- To support written arguments with relevant and adequate evidence.

- To demonstrate sensitivity to matters of style in written language.
- To assess with insight one's own writing by critiquing the writing of others.
- To synthesize learning through the medium of writing.

#### C. CRITICAL THINKING

Courses in Critical Thinking include the following goals for student learning:

- To identify the relevant evidence and experiences needed to make a decision, solve a problem, or create new knowledge.
- To clarify the facts, concepts, evidence, and relationships that contribute to addressing questions and solving problems.
- To evaluate the quality and sufficiency of evidence and other forms of support for a position.
- To revise arguments and findings based on critical reflection.
- To recognize the explicit and implicit features in communication.
- To assess accurately similarities and differences in points of view.
- To monitor one's own comprehension and apply various strategies to clarify one's own thoughts and actions.
- To be organized, persistent, and focused in thinking, inquiry, and communication.

#### II. Historical and Cultural Foundations

Historical and Cultural Foundations include the Development of World Civilization and American History, Institutions, and Values, the latter consisting of American History and Government.

# A. THE DEVELOPMENT OF WORLD CIVILZATION

Courses in Development of World
Civilization include the following goals for student learning:

- To understand holistically the origins and historical development of world civilizations within a global context.
- To describe and analyze critically the reciprocal influence of Western and non-Western institutions, values, and ideas.
- To recognize the forces that contributed to the particular development of diverse societies and shaped our present world.
- To recognize and understand the contributions of ethnic and gender groups to past and present societies in contexts of accommodation and resistance.

 To understand and describe critically major political, economic, intellectual, and cultural themes recurring throughout the history of the world.

# B. AMERCIAN HISTORY, INSTITTIONS, AND VALUES

Courses in American History, Institutions, and Values include the following overall goals for student learning:

- To understand critically the historical development of American institutions and values and their impact on the individual and collective lives of Americans.
- To assess critically how the Constitution of the United States and government under the Constitution have shaped American democracy and contemporary American society.
- To understand critically the political culture of citizen participation, including political parties, pressure groups, public opinion, and the electoral process.

#### 1. American History

Courses in American History include the following as principal goals for student learning.

- To recognize the significance of important cultural, intellectual, moral, and political struggles that have shaped contemporary American society.
- To recognize the significance of the contributions of various ethnic and gender groups to American history, political institutions, and values within contexts of cultural accommodation and resistance.

#### 2. Government

Courses in Government include the following as principal goals for student learning.

- To assess critically the Constitutions of the United States and of California, and the operation of representative democratic government under those Constitutions.
- To explain the processes and interaction between and among local, state, and national government, with particular reference to California.
- To understand critically the structures, functions, and processes of the three branches of government and resulting public policies.
- To assess critically behavior and institutional practices in United States and California politics.

#### III. Disciplinary Learning

Disciplinary Learning includes Mathematics and Natural Science (12 units minimum), Arts and Humanities, and Social Sciences.

## A. MATHEMATICS AND NATURAL SCIENCE

#### 1. Mathematics

Courses in Mathematics include the following goals for student learning:

- To understand and appreciate the varied ways in which mathematics is used in problem-solving.
- To understand and appreciate the varied applications of mathematics to real-world problems.
- To perform appropriate numerical calculations, with knowledge of the underlying mathematics, and draw conclusions from the results.
- To demonstrate knowledge of fundamental mathematical concepts, symbols, and principles.
- To solve problems that require mathematical analysis and quantitative reasoning.
- To summarize and present mathematical information with graphs and other forms that enhance comprehension.
- To utilize inductive and deductive mathematical reasoning skills in finding solutions, and be able to explain how these skills were used.
- To explain the overall process and the particular steps by which a mathematical problem is solved.
- To demonstrate a sense of mastery and confidence in the ability to solve problems that require mathematical concepts and quantitative reasoning.

#### 2. Natural Sciences

Natural Sciences include the following overall goals for student learning:

To understand how different themes of science make connections within and between the different scientific disciplines. Examples of unifying themes are:

Energy Patterns of Change
Stability Scale and Structure
Evolution Science as Inquiry
System and Interactions Science and

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Society

To apply scientific methodology through active experimental methods and experiences (laboratory/activity).

- To evaluate the validity and limitations of theories and scientific claims in interpreting experimental results.
- To understand the dynamic and evolving nature of the sciences.
- To recognize the importance of scientific paradigms and methods in understanding scientific concepts.
- To solve theoretical or experimental problems that require knowledge of science concepts and scientific reasoning.
- To understand the issues raised by science for contemporary society and to appreciate the relevance and application of science in everyday life.
- To understand that there is synergism between science and technology advances in science drive new technologies and new technologies make possible new advances in science. The principles of science provide the underpinnings of technology and, consequently, technology should be taught in conjunction with content directly I linked to the scientific diciplines.

#### a. Physical Science

Physical Science include the following goals for student learning:

 To understand appropriate science and technology\* concepts and principles as follows:

Major Ideas in Physical Science

- Energy exists in many forms. In any process, energy changes form and/or place, but the total amount of energy remains the same.
- Objects interact with one another by exerting forces. Unbalanced forces acting on an object cause change in the motion of the object.
- All matter has observable properties which depend on the conditions and scale at which we look. Investigations of matter at the atomic and subatomic levels explain the properties, reactions, and interactions of matter.

#### b. Earth and Astronomical Sciences

Earth and Astronomical Sciences include the following goals for student learning:  To understand appropriate science and technological concepts and principles as follows:

Major Ideas in Earth and Astronomical Sciences

- Earth materials and structures are organized in interacting systems; the earth itself is part of a planetary system.
- The earth changes continuously, and is part of a universe that itself is changing.
   Energy and matter flow and cycle through earth and astronomical systems.
- Changes within an earth or astronomical system may affect other earth or astronomical systems. Humans are part of and may affect or be affected by these systems.
- Earth and astronomical systems can be understood by applying the basic principles of the physical and life sciences.

#### c. Life Science

Life Science include the following goals for student learning:

 To understand appropriate science and technology (see previous note) concepts and principles as follows:

Major Ideas in Life Science

- Living things are made of smaller structures whose functions enable the organism to survive.
- Living things depend on each other and the physical environment as they interact to obtain, change, and exchange matter and energy.
- The great diversity of living things is the result of billions of years of evolution of organisms through the mechanisms of heredity, random change, and natural selection.

# 3. Implications and Explorations in Mathematics and Natural Sciences

Courses in this category draw upon, integrate, apply, and extend knowledge and skills previously acquired in Category III. A. Disciplinary Learning: Mathematics and Natural Sciences. These courses have a substantial scientific and/or mathematical content and require completion of appropriate courses in Categories III. A. 1 and 2 as prerequisites to enrollment. In addition, courses in III. A. 3. Implications and Explorations in Mathematics and Natural Sciences include the following goals for student learning:

- To understand broad, unifying themes in mathematics and/or science from crossdisciplinary perspectives.
- To solve complex problems that require mathematical and/or scientific reasoning.
- To relate mathematics and/or science to significant social problems or to other related disciplines.
- When deemed appropriate, to apply disciplinary concepts from mathematics and the natural sciences in a variety of settings, such as community-based learning sites and activities.

#### **B. ARTS AND HUMANITIES**

The Arts and Humanities includes Introduction to the Arts, Introduction to the Humanities and Implications, Explorations, and Participatory Experience in the Arts and Humanities.

#### 1. Introduction to the Arts

Introduction to the Arts include the following goals for student learning:

- To understand and appreciate one or more of the traditional artistic disciplines (art, dance, drama, and music).
- · Civilization.
- To recognize the social and cultural role that the arts play in a culturally diverse contemporary world.
- To understand creativity in the arts through direct participation either in the making or performing of art forms or through the experience of such a process by direct observation (such as attending dance or music concerts, plays, or museums).
- To distinguish between subjective and objective responses to a work of art, and be able to articulate an informed opinion about the values of and differences between those responses.

#### 2. Introduction to the Humanities

Introduction to the Humanities include the following goals for student learning:

- To understand the distinctive characteristics of the humanistic perspective.
- To understand the historical and cultural factors, in a global context, that led to the development of the humanistic perspective.

- To understand the differences between the humanistic and other perspectives, as well as the differences among the humanistic disciplines.
- To understand and appreciate the contributions of the humanities to the development of the political and cultural institutions of contemporary society.
- To be familiar with and understand major texts (both written and oral), key figures, significant traditions, and important themes in the humanities.
- To analyze the meaning of major texts (both written and oral) from both Western and non-Western cultures, either in English or, if appropriate, in the language of the texts being analyzed.
- To apply the humanistic perspective to values, experiences, and meanings in one's own life, and demonstrate how understanding the humanities can shed light on what it means to be human today.

#### Implications, Explorations, and Participatory Experience in the Arts and Humanities

Courses in this category draw upon, integrate, apply, and extend knowledge and skills previously acquired in Category III. B. Disciplinary Learning: Art and Humanities and require completion of appropriate courses in Categories III. B. 1 and 2 as prerequisites to enrollment. In addition, courses in III. B. 3. Implications, Explorations, and Participatory Experience in the Arts and Humanities include the following goals for student learning:

- To understand broad, unifying themes in the arts and/or humanities from crossdisciplinary perspectives.
- To solve complex problems that require artistic or humanistic understanding.
- To relate the arts and/or humanities to significant social problems or to other related disciplines.
- When deemed appropriate, to apply disciplinary concepts from the arts and/or humanities in a variety of settings, such as community-based learning sites and activities.
- In arts courses, to deepen previously acquired artistic appreciation and understanding through participation either in

the making or performing of art forms or through the experience of such a process by direct observation.

#### C. SOCIAL SCIENCES

Introduction to the Social Sciences and Implications, Explorations, and Participatory Experience in the Social Sciences.

#### 1. Introduction to the Social Sciences

Introduction to the Social Sciences include the following goals for student learning:

- To reflect on what it means to be a social being.
- To understand the role that cultural diversity plays in defining what it means to be a social being: the past and present processes of cultural differentiation in our own society or elsewhere.
- To understand the origins, workings, and ramifications of social and cultural change in our own society or elsewhere.
- To understand what makes a social science different from other disciplines.
- To understand and compare the distinctive methods and perspectives of two or more social science disciplines.
- To understand major concepts, methods, theories, and theorists in one or more of the social sciences.
- To apply these methods, perspectives, and concepts to everyday, "real life" situations.
- To appreciate the relevance of the social sciences to social, political, and/or economic institutions and behavior.
- To analyze and evaluate critically social science concepts and theories as applied to particular problems or themes.

#### Implications, Explorations, and Participatory Experience in the Social Sciences

Courses in this category draw upon, integrate, apply, and extend knowledge and skills previously acquired in Category III. C. Disciplinary Learning: Social Sciences and require completion of appropriate courses in Category III. C. 1 as a prerequisite to enrollment. In addition, courses in III. C. 2. Implications, Explorations, and Participatory Experience in the Social Sciences include the following goals for student learning:

 To understand broad, unifying themes in the social sciences from cross-disciplinary perspectives.

- To solve complex problems that require social scientific reasoning.
- To relate the social sciences to significant social problems or to other related disciplines.
- When deemed appropriate, to apply disciplinary concepts from the social sciences in a variety of settings, such as community-based learning sites and activities.

#### IV. Lifelong Learning

Lifelong Learning provide the opportunity for students to integrate the elements of their university experience (core competencies, historical and cultural foundations, and disciplinary learning) in attempting to address the complex context and trajectory of human life. Courses in this category include the following goals for student learning

- To understand the human being as an integrated physiological, sociocultural, and psychological organism.
- To understand the course of human life, that is, how human life and experience are constructed and altered through biological, psychological, social, scientific, technological and cultural influences.
- To understand conceptions of the course of human life from different cultural perspectives.
- To understand the importance of a lifelong commitment to physical activity and a healthy manner of living for both personal well being and civic responsibility.
- To understand the basis and the means by which individuals and society make decisions.

#### V. Cultural Diversity

Students must complete at least one three unit course that includes all of the following learning goals for cultural diversity:

- To understand that culture is socially constructed and fundamental to social interaction.
- To appreciate the complex relationships that gender, ethnicity and class bring to a discussion of society and culture.
- To understand that because we live in an inter-connected world, we need to understand the diversity and relationships within and among cultures.

 To recognize and evaluate how one's cultural history affects one's sense of self and relationship to others.

Courses in General Education that meet these learning goals will be identified by a star (\*) in appropriate publications.

# GENERAL EDUCATION COURSE REQUIREMENTS

# I. CORE COMPETENCIES (9 units minimum)

NOTE: A grade of C or better is required in sections I.A., I.B., and I.C. and III.A.1.

# A. Oral Communication (3 units minimum)

Choices:

Chicano Studies 102 Communication Skills (3)

Speech Comm 100 Introduction to Human Communication (3)

Speech Comm 102 Public Speaking (3)

Theatre 110 Oral Communication of Literature (3)

### B. Written Communication (3 units

Students must satisfy the English Placement (EPT) requirement prior to enrollment in the course.

English 101 Beginning College Writing (3)

#### C. Critical Thinking (3 units minimum)

Choices

Philosophy 200 Argument and Reasoning (3)

Philosophy 210 Logic (3)

Psychology 110 Reasoning and Problem Solving (3)

Reading 290 Critical Reading as Critical Thinking (3)

Speech Comm 235 Essentials of Argumentation (3)

# HISTORICAL AND CULTURAL FOUNDATIONS (12 units minimum)

#### A. The Development of World Civilization (6 units minimum)

History 110A World Civilization to the 16th Century (3)

History 110B World Civilization Since the 16th Century (3)

#### B. American History, Institutions and Values (6 units minimum)

Courses in this section meet Title 5, section 40404, requirements by providing a "comprehensive study of American history and American government including the historical development of American institutions and ideals, the Constitution of the United States and the operation of representative democratic government under the Constitution, and the process of state and local government."

### 1. American History (3 units minimum) Choices:

Afro-Ethnic Studies 190 Survey of American History with Emphasis on Ethnic Minorities (3)

American Studies 201 Introduction to American Studies (3)

Chicano Studies 190 Survey of American
History with Emphasis on Ethnic
Minorities (3)

History 170A United States to 1877 (3) and History 170B United States since 1877 (3)

History 180 Survey of American History (3)

History 190 Survey of American History with Emphasis on Ethnic Minorities (3)

NOTE: Students who take History 170A must also take History 170B and vice versa.

#### 2. Government (3 units minimum)

Political Science 100 American Government (3)

NOTE: Transfer students from outside the State of California who have ALREADY completed a basic course in American Government may substitute Political Science 300 Contemporary Issues in California Government and Politics (3) for Political Science 100.

#### III. DISCIPLINARY LEARNING (27 units minimum)

# A. Mathematics and Natural Sciences (12 units)

At least one laboratory course must be taken in III.A.2a., III.A.2b.,III.2c or III3. Approved laboratory courses are indicated with a dagger (†).

#### 1. Mathematics (3 units minimum)

Maximum of 4 units of lower division coursework may be counted in this section. Students must pass the Entry Level

Mathematics (ELM) test before taking any course in this section.

Choices:

Mathematics 110 Mathematics for Liberal Arts Students (3)

Mathematics 115 College Algebra (4)

Mathematics 120 Introduction to Probability and Statistics (3)

Mathematics 125 Precalculus (5)

Mathematics 130 A Short Course in Calculus (4)

Mathematics 135 Business Calculus (3)

Mathematics 150A Analytic Geometry and Calculus (4)

Management Sci/Info Systems 361A Quantitative Business Analysis: Probability and Statistics (3)

#### 2. Natural Sciences (6 units minimum)

 a. Physical Science (0-3 units; 3 units minimum must be taken in 2a Physical Science or 2b Earth and Astronomical Science)

Choices:

Chemistry 100 Survey of Chemistry (3)

Chemistry 100L† Survey of Chemistry Lab (1)

Chemistry 115 Introductory General Chemistry (4)

Chemistry 120A† General Chemistry (5)

Physics 211 Elementary Physics (3)

Physics 211L† Elementary Physics Lab (1)

Physics 225 Fundamental Physics: Mechanics (3)

Physics 225L† Fundamental Physics: Lab (1)

b. Earth and Astronomical Science (0-3 at least 3 units must be taken from 2a or 2b)

Choices:

Geological Sci 101 Physical Geology (3)

Geological Sci 101L† Physical Geology Lab (1)

Physics 101 Survey of Astronomy and Physics (3)

Physics 101L† Survey of Astronomy and Physics Lab (1)

#### c. Life Science (3 units minimum)

Choices

Biology 101 Elements of Biology (3)
Biology 101L† Elements of Biology Lab (1)
Biology 131 Principles of Biology (3)

#### Implications and Explorations in Mathematics and Natural Sciences (0-3)

Choices:

Anthropology (3) Anthropology (3)

Anthropology 301 Primate Behavior (3)

Anthropology 440 Human Evolution (3)

Biology 300 Environmental Biology (3)

Biology 305 Human Heredity & Development (3)

Biology 306 Biology of Aging (3)

Biology 310 Human Physiology (3)

Biology 311 Nutrition and Disease (3)

Biology 318 Wildlife Conservation (3)

Biology 319 Marine Biology (3)

Biology 319L† Marine Biology Lab (1)

Biology 323 Biology of Sexually Transmitted Diseases (STD) (2)

Biology 330 Ecology of American Indians (3)

Biology 352 Plants and Life (3)

Biology 353 Principles of Horticulture (2)

Biology 353L† Principles of Horticulture
Lab (1)

Biology 360 Biology of Human Sexuality (2)

Chemistry 111 Nutrition and Drugs (3)

Chemistry 311 Nutrition and Disease (3)

Computer Sci 313 The Computer Impact (3)

Geography 110 Physical Geography (3)

Geography 120 Global Environmental Problems (3)

Geological Sci 140 Earth's Atmosphere (3)

Geological Sci 201 Earth History (4)

Geological Sci 310T Topics in California-Related Geology (1-3)

Geological Sci 333 General Oceanography (3)

Geological Sci 335 General Hydrology (3) Geological Sci 340 General Meteorology (3)

Geological Sci 376 Applied Geology (3)

History 230 The Ascent of Man (3)

History 430 History of Science: Copernicus to the Present (3)

Mathematics 338 Statistics Applied to Natural Sciences (3)

Mathematics 368 First Course in Symbolic Logic (3)

Philosophy 303 Introduction to Philosophy of Science (3)

Philosophy 368 First Course in Symbolic Logic (3) Philosophy 384 Philosophy of the Physical Sciences (3)

Philosophy 386 Philosophy of Biology (3)

Physics 200 Introduction to Astronomy (4)

Physics 212 Elementary Physics (3)

Physics 212L† Elementary Physics Lab (1)

Physics 226 Fundamental Physics: Electricity and Magnetism (3)

Physics 226L† Fundamental Physics: (Lab) (1)

Physics 301 Energy and the Environment (3)

Physics 384 Philosophy of the Physical Sciences (3)

Sociology 303 Statistics for the Social Sciences (3)

Speech Comm 303 Biology of Human Communication (3)

#### B. Arts and Humanities (9 units minimum)

## Introduction to the Arts (3 units minimum)

Choices:

Art 101 Introduction to Art (3)

Art 201A Art and Civilization (3)

Art 201B Art and Civilization (3)

Art 311 Foundations of Modern Art (3)

Art 312 Modern Art (3)

Dance 101 Introduction to Dance (3)

Music 100 Introduction to Music (3)

Music 101 Music Theory for Non-Music Majors (3)

Theatre 100 Introduction to the Theatre (3)

#### Introduction to the Humanities (3 units minimum)

Choices:

Anthropology 100 Non-Western Cultures and the Western Tradition (3)

Comparative Lit 110 Literature of the Western World from Ancient through Medieval Times (3)

Comparative Lit 111 Literature of the Western World from the Renaissance through the 19th Century (3)

Comparative Lit 324 World Literature to 1650 (3)

Comparative Lit 325 World Literature from 1650 (3)

Comparative Lit 373 19th Century Russian Literature (3)

Comparative Religion 105 Religion and the Quest for Meaning (3)

Comparative Religion 110 Religions of the World (3)

Comparative Religion 200 Introduction to Christianity (3)

Comparative Religion 210 Introduction to Judaism (3)

Comparative Religion 280 Introduction to Buddhism (3)

Comparative Religion 301 Sanskrit (4)

English 110 Literature of the Western World from Ancient through Medieval Times (3)

English 111 Literature of the Western World from Renaissance through the 19th Century (3)

English 200 Introduction to Literature (3)

English 311 British Literature to 1760 (3)

English 312 British Literature from 1760 (3)

English 321 American Literature to Whitman (3)

English 322 American Literature from Twain to Modern (3)

French 213 Intermediate Diction and Phonetics (2)

French 214 Intermediate Conversation and Composition (2)

German 213 Intermediate Reading - A (2)

German 214 Intermediate Reading - B (2)

Spanish 105 Intensive Review of Fundamental Spanish (5)

Spanish 201 Spanish for Spanish Speakers (3)

Spanish 213 Intermediate Conversation (3)

Spanish 214 Intermediate Composition (3)

Linguistics 106 Language and Linguistics (3)

Linguistics 301 Sanskrit (4)

Philosophy 100 Introduction to Philosophy (3)

Philosophy 110 Religions of the World (3)

Philosophy 290 History of Philosophy: Greek Philosophy (3)

Philosophy 300 History of Philosophy: Rationalism and Empiricism (3)

Philosophy 310 Ethics (3)

#### Implications, Explorations and Participatory Experience in the Arts and Humanities (3 units minimum)

Choices:

Afro-Ethnic 314 Pan-African Dance and Movement (3)\*

Afro-Ethnic 320 Black American Intellectual Thought (3)\*

Afro-Ethnic 381 African Literature (3)\*

Afro-Ethnic 424 Afro-American Literature (3)

Afro-Ethnic 437 American Indian Religions and Philosophy (3)\*

Afro-Ethnic 460 Afro-American Music
Appreciation (3)\*

Anthropology 104 Traditional Cultures of the World (3)\*

Anthropology 305 Anthropology of Religion (3)\*

Anthropology 306 Comparative Aesthetics and Symbolism (3)\*

Art 103 Two-Dimensional Design (3)

Art 104 Three-Dimensional Design (3)

Art 106A Beginning Ceramics (3)

Art 107A Beginning Drawing (3)

Art 107B Beginning Painting (3)

Art 205A Beginning Crafts (3)

Art 216A Beginning Sculpture (3)

Art 326A Ceramic Sculpture (3)

Art 338A Creative Photography (3)

Art 364A Stained Glass (3)

Art 401 History of Women Artists (3)\*

Art 462 Latin American Art From 1800 to 1950's (3)\*

Chicano Studies 302 Ancient Mexican Culture (3)\*

Chicano Studies 304 Music of Mexico (3)\*

Chicano Studies 315 Chicano/Latino Theatre (3)\*

Chicano Studies 316 The Chicano Music Experience (3)\*

Chicano Studies 336 Main Trends in Spanish-American Literature (3)

Chicano Studies 337 Contemporary Chicano Literature (3)

Chicano Studies 430 The Evolution of Mexican Literature (3)

Chicano Studies 433 Mexican Literature Since 1940 (3) Chicano Studies 440 Mexican Intellectual
Thought (3)\*

Communications 300 Visual

Communication (3)

Communications 383 World Cinema (3)

Comparative Lit 312 The Bible as Literature (3)

Comparative Lit 315 Classical Mythology in World Literature (3)

Comparative Lit 374 20th Century Russian Literature (3)

Comparative Lit 380 Introduction to Asian Literature (3)\*

Comparative Lit 381 African Literature (3)\*

Comparative Lit 423T Topics in Asian Literature (3)\*

Comparative Religion 250 The Religion of Islam (3)\*

Comparative Religion 270T Introduction to the Oriental Religions (3)\*

Comparative Religion 312 The Bible as Literature (3)

Comparative Religion 345A History and Development of ChristianThought: The Beginning to 1274 (3)

Comparative Religion 345B History and Development of ChristianThought: 1275 to the Present (3)

Comparative Religion 346A History and Development of Jewish Thought:

Biblical Origins to Maimonides (3)\*

Comparative Religion 346B History and Development of JewishThought: 1204 to the Present (3)\*

Comparative Religion 347A Hinduism to 400 B.C.E. (3)

Comparative Religion 347B Hinduism from 400 B.C.E. (3)

Comparative Religion 349A History and Development of Islamic Thought: The Beginning to 1258 (3)

Comparative Religion 349B History and Development of Islamic Thought: 1259 to Modern Times (3)

Comparative Religion 350T Major Christian Traditions (3)

Comparative Religion 358 Comparative Mysticism (3)

Comparative Religion 405 History of the Jews (3)

Comparative Religion 437 American Indian Religion and Philosophy (3)\*

Comparative Religion 465A History of India (3)\*

Dance 112 Ballet I (2)

Dance 122 Modern Dance I (2)

Dance 126 Dance Improvisation (2)

Dance 132 Jazz I (2)

Dance 301 Dance and Cultural Diversity (3)\*

Dance 325 Dance Theory and Criticism (3)

English 105 Introduction to Creative Writing (3)

English 204 Intermediate Creative Writing (3)

English 323T Cultural Pluralism in American Literature (3)\*

English 381 African Literature (3)\*

English 420 Literature of the American Indians (3)\*

English 424 Afro-American Literature (3)

English 433 Childrenis Literature (3)

English 441 Linguistics & Literature (3)

Chinese 315 Introduction to Chinese Civilization\* (3)

Chinese 325 Contemporary Chinese Culture (3)

French 315 Origins of Modern France (3)\*

French 325 Contemporary French
Civilization (3)

French 375 Explorations in Literature (3)

German 315 Introduction to German Civilization (3)\*

German 325 Current Trends in Culture of German Speaking People (3)

German 335 Introduction to Literature (3)

Japanese 315 Introduction to Japanese Civilization (3)\*

Japanese 316 Modern Japan (3)\*

Japanese 375 Introduction to Literary Forms (3)

Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)\*

Portuguese 325 Contemporary Brazilian Civilization (3)

Spanish 315 Introduction to Spanish Civilization (3)\*

Spanish 316 Introduction to Spanish-American Civilization (3)\*

Spanish 375 Introduction to Literary Forms (3)

Spanish 415 Contemporary Spanish
Culture (3)

Spanish 416 Contemporary SpanishAmerican Culture (3)

History 405 History of The Jews (3)

History 465A History of India (3)\*

History 477 Women's Image in America Film (3)

History 483 American Religious History (3)

Library 200 Elements of Bibliographic Investigation (3)

Music 103 History of Rock (3)

Music 183 Voice Class for Non-Music Majors (1)

Music 184A Piano Class for Non-Music Majors (1)

Music 184B Piano Class for Non-Music Majors (1)

Music 185 Guitar Class for Non-Music Majors (1)

Music 301 Techniques of Song Writing (3)

Music 302 History of Jazz (3)\*

Music 303 World Music (3)\*

Music 304 Music of Mexico (3)\*

Music 352 Symphonic Music in Western and

Eastern Cultures (3)\*

Music 355 Film Music (3)

Music 361A Symphony Orchestra (1)

Music 361C Symphonic Band (1)

Music 361D Opera Theatre (1)

Music 361E University Singers (1)

Music 361F University Wind Ensemble (1)

Music 361M Men's Chorus (1)

Music 361W Women's Choir (1)

Music 362B Varsity Band (1)

Music 362D Percussion Ensemble (1)

Music 362E Brass Ensemble (1)

Music 362M Horn Ensemble (1)

Music 362S Jazz Ensemble II (1)

Music 363B Chamber Ensemble Brass (1)

Music 363G Chamber Ensemble Guitar (1)

Music 363J Chamber Ensemble Jazz Combo (1)

Music 363K Chamber Ensemble Keyboard (1)

Music 363S Chamber Ensemble Strings (1)

Music 363W Chamber Ensemble
Woodwind (1)

Music 363X Chamber Ensemble Saxophone (1)

Music 460 Afro-American Music
Appreciation (3)\*

Philosophy 312 Business and Professional Ethics (3)

Philosophy 313 Environmental Ethics (3)

Philosophy 314 Medical Ethics (3)

Philosophy 323 Existentialism (3)

Philosophy 350 Asian Philosophy (3)\*

Political Sci 331 Third World Politics Through Literature (3)

Political Sci 340 Political Philosophy (3)

Theatre 163 Acting for Non Majors (3)

Theatre 277 Introduction to Costume Design (3)

Theatre 310 Oral Interpretation of Shakespeare (3)

Theatre 315 Chicano/Latino Theatre (3)\*

Theatre 411 Oral Interpretation of Children's Literature (3)

#### C. Social Sciences (3 units minimum)

# Introduction to the Social Sciences (3 units minimum)

Choices:

American Studies 101 Introduction to American Culture Studies (3)

Economics 100 The Economic Environment (3)

Economics 201 Principles of
Microeconomics (3)

Geography 100 World Geography (3)

Political Sci 200 Introduction to the Study of Politics (3)

Psychology 101 Introductory Psychology (3) Sociology 101 Introduction to Sociology (3)

#### Implications and Explorations in the Social Sciences (3 units minimum)

Choices

Afro-Ethnic 101 Introduction to Ethnic Studies (3)\*

Afro-Ethnic 107 Introduction to Afro-American Studies (3)\*

Afro-Ethnic 108 Linguistics and Minority Relations (3)\*

Afro-Ethnic 301 Afro-American Culture (3)\*

Afro-Ethnic 309 The Black Family (3)\*

Afro-Ethnic 310 Black Women in America (3)\*

Afro-Ethnic 311 Intracultural Socialization
Patterns (3)\*

Afro-Ethnic 312 American Indian Women (3)\*

Afro-Ethnic 317 Black Politics (3)\*

Afro-Ethnic 325 African-American Religion (3)\*

Afro-Ethnic 335 History of Racism (3)\*

Afro-Ethnic 346 The African Experience (3)\*

Afro-Ethnic 385 Schools and Minority Groups (3)\*

Afro-Ethnic 422 Psychology of the Afro-American (3)\*

Afro-Ethnic 430 A Social Psychological Study in Ethnic Minority Behavior (3)\*

American Studies 300 Introduction to American Popular Culture (3)

American Studies 301 The American Character (3)\*

American Studies 345 The American Dream (3)

American Studies 411 The White Ethnic in America (3)\*

American Studies 450 Women in American Society (3)\*

American Studies 386A American Social History 1750-1860 (3)

American Studies 386B American Social History 1865-1930 (3)

Anthropology 103 Introduction to Archaeology (3)

Anthropology 300 Language and Culture (3)

Anthropology 320 Cultures of Europe (3)

Anthropology 321 The American Indian (3)\*

Anthropology 325 Peoples of South America (3)\*

Anthropology 327 Origins of Civilizations (3)

Anthropology 328 Peoples of Africa (3)\*

Anthropology 329 Peoples of the Caribbean (3)

Anthropology 340 Peoples of Asia (3)\*

Anthropology 345 Peoples of the Middle East and North Africa (3)\*

Anthropology 347 Peoples of the Pacific (3)\*

Anthropology 360 Contemporary American

Culture (3)\*

Anthropology 409 Applied Anthropology (3) Anthropology 410 Urban Anthropology (3)

Anthropology 412 Culture Change (3)

Anthropology 413 Culture and Personality: Psychological Anthropology (3) Anthropology 450 Culture and Education (3)\* Anthropology 460 Public Archaeology in

California (3)

Chicano Studies 106 Introduction to Chicano Studies (3)\*

Chicano Studies 108 Linguistics and Minority Relations (3)

Chicano Studies 220 Mexican Heritage (3)\*

Chicano Studies 305 The Chicano Family (3)\*

Chicano Studies 403 Cultural Differences in Mexico & the Southwest (3)\*

Chicano Studies 406 La Chicana (3)\*

Chicano Studies 431 The Chicano Child (3)\*

Chicano Studies 432 The Chicano Adolescent (3)\*

Chicano Studies 445 History of the Chicano (3)\*

Chicano Studies 450 The Chicano and Contemporary Issues (3)\*

Chicano Studies 453 Mexico Since 1906 (3)\*

Chicano Studies 460 The Chicano and Politics (3)\*

Child and Adolescent Studies 312 Human Growth and Development (3)

Communications 233 Mass Communication in Modern Society (3)

Communications 425 History and Philosophy of American Mass Communication (3)

Comparative Religion 325 African-American Religion (3)

Comparative Religion 481 Religion and Politics in the American Experience (3)

Counseling 380 Theories and Techniques of Counseling (3)

Criminal Justice 300 Introduction to Criminal Justice (3)

Criminal Justice 320 Introduction to Public Management (3)

Criminal Justice 440 Minorities and the Criminal Justice System (3)\*

Economics 201 Principles of Microeconomics (3)

Economics 202 Principles of Macroeconomics (3)

Economics 330 Comparative Economic Systems (3)

Economics 331 Economies in Transition (3)

Economics 332 Economies of the Pacific Rim (3)

Economics 333 Economic Development:

Analysis & Case Studies (3)

Economics 334 Economics of Latin America & the Caribbean (3)

Economics 350 American Economic History (3)

Economics 361 Urban Economics (3)

Economics 362 Environmental Economics (3)

Geography 160 Culture and Environment (3)

Geography 170 Southern California Metropolis (3)

Geography 332 United States and Canada (3)\*

Geography 333 Latin America (3)\*

Geography 340 Asia (3)\*

Geography 344 Africa (3)\*

Geography 350 Nature of Society (3)

History 330 History of Economic

Development in the First and Third

Worlds (3)

History 350 History of Latin American Civilization (3)\*

History 360 Modern Asia: Nationalism & Revolutionary Change (3)\*

History 386A American Social History 1750-1860 (3)

History 386B American Social History 1865-1930 (3)

History 452 20th Century Brazil (3)\*

History 455 Latin America Since 1945 (3)

Human Services 311 Intracultural Socialization Patterns (3)\*

Human Services 380 Theories and Techniques of Counseling (3)

Kinesiology 381 Human Movement in Cultural Perspective (3)

Linguistics 108 Linguistics and Minority
Dialects (3)\*

Linguistics 369 Language, Sex Roles & the Brain (3)

Linguistics 412 Sociolinguistics (3)

Music 305 Women in Music (3)\*

Philosophy 302 Introduction to Intercultural Women's Studies (3)\*

Philosophy 341 Assumptions of Psychotherapy (3)

Political Sci 300 Contemporary Issues in California Government and Politics (3)

Political Sci 309 Introduction to Metropolitan Politics (3)

Political Sci 310 American Political
Behavior (3)

Political Sci 315 American Policy-Making Process (3)

Political Sci 317 Black Politics (3)\*

Political Sci 320 Introduction to Public Management and Policy (3)

Political Sci 330 Politics in Nation-States (3)

Political Sci 350 World Politics in the 21st Century (3)

Political Sci 352 American Foreign Policy (3)

Political Sci 375 Law, Politics and Society (3)

Political Sci 460 The Chicano and Politics (3)\*

Political Sci 481 Religion and Politics in the American Experience (3)

Political Sci 485 Women and Politics (3)

Psychology 311 Educational Psychology (3)

Psychology 312 The Psychology of Human Sexual Behavior (3)

Psychology 331 Psychology of Personality (3)

Psychology 341 Abnormal Psychology (3)

Psychology 350 Environmental Psychology (3)

Psychology 351 Social Psychology (3)

Psychology 361 Developmental Psychology (3)

Psychology 362 Psychology of Aging (3)

Sociology 133 Introduction to Gerontology (3)

Sociology 361 Population and the Environment (3)

Sociology 371 Urban Sociology (3)

Sociology 407 Women in Contemporary Society (3)

Sociology 431 Minority Group Relations (3)\*

Sociology 436 Social Stratification (3)\*

Sociology 450 Sociology of Sex Roles (3)

Sociology 451 Sociology of the Family (3)

Sociology 465 Law and Society (3)

Speech Comm 320 Intercultural Communication (3)\*

Women's Studies 302 Introduction to Intercultural Women's Studies\*(3)

Women's Studies 310 Black Women in America\*(3)

Women's Studies 406 La Chicana\*(3)

# IV. LIFE-LONG LEARNING (3 units minimum)

Choices:

American Studies 450 Women in American Society (3)\*

Anthropology 415 Culture and Nutrition (3)

Anthropology 417 Life Quests (3)

Anthropology 432 Women in Cross-Cultural Perspective (3)

Anthropology 442 Medical Anthropology (3)

Biology 306 Biology of Aging (3)

Biology 311 Nutrition and Disease (3)

Biology 360 Biology of Human Sexuality (2)

Chemistry 111 Nutrition and Drugs (3)

Chemistry 311 Nutrition and Disease (3)

Chicano Studies 305 The Chicano Family (3)\*

Child and Adolescent Studies 312 Human Growth and Development (3)

Child and Adolescent Studies 330
Adolescence & Early Adulthood (3)

Comparative Lit 355T Images of Women in Literature (3)

Comparative Religion 305 Contemporary
Practices of the World's Religions (3)

Comparative Religion 380 The Religious Roots of Nonviolence (3)

English 355T Images of Women in Literature (3)

Health Science 101 Personal Health (3)

Health Science 301 Promotion of Optimal Health (3)

Health Science 321 Drugs and Society (3)

Health Science 342 Stress Management (3)

Health Science 353 Physical Activity and Lifelong Well-Being (3)

Human Services 300 Character and Conflict (3)

Kinesiology 342 Stress Management (3)

Kinesiology 353 Physical Activity & Lifelong Well-Being (3)

Music 350 Music in Our Society (3)

Nursing 301 Promotion of Optimal Health (3)

Nursing 302 Health Delivery System and the Consumer (3)

Nursing 303 Women's Health and Healing (3)\*

Philosophy 312 Business & Professional Ethics (3)

Philosophy 324 Existential Group (3)

Political Science 344 AIDS: Politics, Policy and Management (3)

Psychology 312 The Psychology of Human Sexual Behavior (3)

Psychology 361 Developmental Psychology (3)

Psychology 362 Psychology of Aging (3)

Secondary Ed 386 Adolescence (3)

Sociology 341 Social Interaction (3)

Sociology 450 Sociology of Sex Roles (3)

Sociology 451 Sociology of the Family (3)

Sociology 460 Sociology of Death and Dying (3)

Special Education 250 Discrimination Issues (3)

Speech Comm 345 Communication and Aging (3)

# V. CULTURAL DIVERSITY (3 units minimum)

At least one star (\*) course in Sections IIIB2, IIIC2, or IV must be taken.

# teaching credential

#### INTRODUCTION

California State University, Fullerton offers a full range of State-approved credential programs leading to careers in education. From its earliest days to the present, this has been one of the chief missions of the university. Pursuing a teaching credential in California is a complicated matter because of the number of specific requirements that must be met. Credential requirements are established by the Legislature and enforced by the Commission on Teacher Credentialing (CTC). This commission also reviews and approves all credential preparation pro-

grams, such as those at the university. An academic major in education is not permitted in California, thus students seeking teaching credentials must do so in conjunction with, or after the completion of, a baccalaureate degree program in an academic area outside of education. CSUF offers programs leading to basic teaching credentials, specialist credentials, and services credentials. The specialist and services credentials, described briefly below, are more advanced programs designed to be taken in conjunction with graduate study.

In this section of the catalog information is presented regarding:



- A. Basic Credential Programs
- B. The Multiple Subject Credential and Multiple Subject Matter Preparation Program
- C. The Single Subject Credential and Subject Matter Preparation Programs
- D. Supplementary Authorizations for the Basic Teaching Credentials
- E. Education Specialist Credentials
- F. Services Credentials

#### A. BASIC CREDENTIAL PROGRAMS

In California there are three basic teaching credentials, the Multiple Subject Credential, Single Subject Credential and the Special Education Specialist Credential. The Multiple Subject Credential authorizes a person to teach in a classroom where many different subjects are taught by a single individual, such as in elementary schools. The Single Subject Credential authorizes a teacher to teach in a classroom where only one subject is taught, such as a classroom in departmentalized high schools and junior high schools. Thus the person interested in elementary school teaching should pursue the program designed for the Multiple Subject Credential, and the person interested in teaching a specific subject at the junior high or high school level should pursue the program for the Single Subject Credential. The Special Education Specialist Credentials are designed for persons interested in working with children and adults with disabilities.

# TEACHING CREDENTIAL PROGRAMS

Basic Credential Programs

Multiple Subject Credential

Multiple Subject Matter Preparation

Program

Single Subject Credential and Subject
Matter Preparation Program
Supplementary Authorizations
Education Specialist Credentials
Services Credentials

In California a person can earn first a preliminary and then a professional clear basic teaching credential. The requirements for the professional clear credential are built on those for the preliminary credential. The preliminary credential is the level that authorizes beginning teaching.

#### Minimum Requirements for a Preliminary Multiple, Single Subject, or Special Education Credential

Although it is possible to complete the minimum requirements for a preliminary basic teaching credential in four years, it generally takes a good student with accurate academic advising about four and a half years full-time to complete all the requirements for a preliminary basic teaching credential and a baccalaureate degree. The minimum requirements for a preliminary basic credential include:

- A baccalaureate degree in a field other than professional education from a regionally accredited college or university.
- 2. An approved program of professional preparation, including supervised student teaching. A two semester program may be taken during the fourth and/or fifth year of study. Cal State Fullerton offers state-approved professional preparation programs through the School of Human Development and Community Service. An alternative plan is the three semester Intern Credential Program, which combines one semester of supervised student teaching and course work. This alternative is offered in both Multiple Subject and Multiple Subject with a Bilingual Emphasis Credential Programs. Further information about these programs, including admission and prerequisite requirements, is provided in this catalog under the Department of Elementary and Bilingual Education, and the Secondary Teacher Education Program.
- Passage of the California Basic Education Skills Test (CBEST), a test of reading, writing, critical thinking and mathematics skills. CSUF is one of the stateapproved testing centers for this examination, as well as for other examinations used in the teacher credentialing process.
- Demonstration of subject matter knowledge appropriate to the specific credential being authorized. This can be achieved

- either by passing a state-approved subject matter examination (for the Multiple Subjects Credential this test is the Multiple Subjects Assessment for Teachers [MSAT]) or by completing the CSUF state-approved Multiple Subject Matter Preparation Program. This program is described below. (For Single Subject credentials, please discuss this option—test or waiver—with the coordinator for your subject matter. Some programs require that you complete a subject matter preparation program.)
- Satisfactory completion of at least two semester units of work on the provisions and principles of the U.S. Constitution or passage of an examination on this area. Students planning to enter one of the CSUF credential programs may seek academic advisement and counseling in the Center for Careers in Teaching (CCT), located in University Hall-178. In the information seminars held by the CCT, students learn how to efficiently blend general education, major and credential program prerequisites. These seminars and the other services provided by the CCT, including evaluation of transcripts for the Multiple Subject Matter Preparation Program, are geared toward the undergraduate planning to enter the teaching profession.

Overview sessions offered by the Department of Education are helpful to those students who are ready to apply to a credential program. Schedules for these sessions are available in Education Classroom-207.

#### B. THE MULTIPLE SUBJECT CREDENTIAL AND SUBJECT MATTER PREPARATION

In California, Professional Teacher
Preparation is a two- or three-semester
program taken during the fourth and/or fifth
year of college; there is no major in education. Since students will be devoting their
first three years of work to completing
general education, major and multiple
subject matter preparation program requirements, it is essential that students consider
their selection of an academic major carefully.
Most persons interested in earning a Multiple
Subject Credential at CSUF select child
development, liberal studies or human services as an academic major. Persons inter-

ested in working as bilingual teachers by earning a Multiple Subject Credential with a Bilingual Emphasis might consider majoring in a foreign language. Majors in the social sciences, humanities or natural sciences can also be excellent backgrounds for careers in elementary school teaching. According to California law, any major (other than education) can be selected.

A person seeking a Multiple Subject Credential will be required to demonstrate a broad general knowledge of the arts, humanities, social sciences, mathematics, language arts, and natural sciences. There are two ways to demonstrate that knowledge: one is by passing a state-approved examination, MSAT; the other is by completing the CSUF stateapproved Multiple Subject Matter Preparation Program.

# MULTIPLE SUBJECT MATTER PREPARATION PROGRAM

The Multiple Subject Matter Preparation Program requires course work in each subject area taught in the elementary classroom. A grade of C or better, or credit, is required in all classes used to meet the Multiple Subject Matter Preparation Program requirements. Students are reminded that any class intended to apply to the major or GE must be taken for a letter grade.

The specific requirements of the CSUF Multiple Subject Matter Preparation Program are subject to change by the California Commission on Teacher Credentialing. Students wishing to complete this program must receive an official transcript evaluation through procedures established by the Multiple Subject Matter Preparation Program Coordinator, whose office is located in the Center for Careers in Teaching, University Hall 178.

#### 1. Language Arts (18 units)

- 1.1 Composition
  - 1.11 GE Intro to Composition (3 units)
  - 1.12 GE Upper-division writing course (3 units)
- 1.2 Speech: GE speech course (3 units)
- 1.3 Language Structure and Acquisition
  - 1.31 Grammar: English 303 (3 units)
  - 1.32 Language Acquisition:
    Anthropology 300; Linguistics
    106; Linguistics/Speech
    Comm 307; Speech

Communication 301; or one semester of foreign language (3 units)

1.4 GE Critical thinking (3 units)

# 2. Literature/Ethics/Classics (9 units) A course may be used in only one section

- 2.1 Survey of Literature: Chicano Studies 336, 337, 430, or 433; Comparative Literature 110, 111, 324 or 325; or English 200, 311, 321, 322 or 381 (3 units)
- 2.2 Children's Literature: English 433,
  Theatre 411 (3 units)
  Ethics/Classics: Latin 101; Comparative
  Literature 110, 324; History 415A,
  415B, 417A, 417B; Philosophy 100,
  290, 300 or 310; Comparative
  Literature 110 (3 units)

#### 3. Mathematics (9 units)

- 3.1 Completion of GE Mathematics (3 units)
- 3.2 Math education: Mathematics 303A and Mathematics 303B (3-6 units)
- Science (12 units) The 12-unit minimum for this section may be fulfilled by taking Science Education courses or the appropriate GE science courses for 4.2 and 4.3.
  - 4.1 Life Science (3 units)
  - 4.2 Physical Science (0-3 units)
  - 4.3 Earth/Space Science (0-3 units)Science Education: Science Education410 and/or 453 (3-6 units)

#### 5. Social Science (21 units)

- 5.1 Completion of the U.S. Government requirement of the GE program (3 units)
- 5.2 Completion of the U.S. History requirement of the campus GE program (3 units)
- 5.3 GE World History and Culture: Anthropology 100; or History 110A, 110B, 302A, 302B (3 units)
- 5.4 World Geography: Geography 100 or 160 (3 units)
- 5.5 Cultural Diversity: Afro-Ethnic Studies 309, 310, or 311; American Studies 301 or 450; Anthropology 450; Chicano Studies 305 or 431; Sociology 431; or Speech Communication 320 (3 units)

5.6 Additional Social Science with at least3 units from upper-division work(6 units)

#### 6. Visual Performing Arts (9-12 units)

- 6.1 GE Intro to the Arts (3 units)
- 6.2 Upper-Division Arts Education
- 6.21 Comparative Arts (may be waived if 6.1 is satisfied with Integrated Arts GE course)
  Afro-Ethnic Studies 301;
  American Studies 433 or 449;
  Anthropology 306, Liberal
  Studies 303 or 486; or
  Philosophy 311 (3 units)
  - 6.22 Additional arts education.
    Fulfill one section if student
    has taken the integrated Arts
    course and a comparative arts
    course from Section 6.21;
    fulfill two sections if student
    has taken any other Intro to
    the Arts course. (3-6 units)
    - 6.221 Children's Art: Art 380
    - 6.222 Children's Music: Music 333 or 433
    - 6.223 Children's Theatre or Dance: Dance 471 or Theatre 402A

#### 7. Physical Education (3 units)

7.1 Movement and the Child: Kinesiology 386 (3 units)

#### 8. Human Development (3 units)

8.1 Child/Adolescent Studies 325 or 312 or Psychology 361 (3 units)

The above Multiple Subject Matter
Preparation Program has been designed for
maximal compatibility with the campus
general education program. Nevertheless,
good academic advising and careful course
selection each semester are essential if a
person is to complete major requirements,
preparation program requirements and
general education requirements in the most
efficient way. Students are urged to contact
the Multiple Subject Matter Preparation
Program Coordinator in University Hall 178
for transcript evaluation and advisement early
in their academic careers.

The California Commission on Teacher Credentialing requires that students using a subject matter competency program rather than the examination undergo an assessment in addition to course grades. Information about the assessment associated with the Multiple Subject Matter Preparation Program can be obtained from the coordinator of the program.

# C. SINGLE SUBJECT CREDENTIALS AND SUBJECT MATTER PREPARATION

Although a person seeking a Single Subject Credential may complete any academic major, most people decide to complete the degree major closest to the subject field in which they wish to be authorized to teach. CSUF offers a Single Subject Credential program in each of the following state-authorized subject fields.

Art

**Business Education** 

English (English, Theater)

French

German

Japanese

Life Science (Biology)

Mathematics

Music

Physical Education

Physical Sciences (Chemistry, Geology and Physics)

Social Sciences (Anthropology, American Studies)

Economics, Geography, Chicano Studies, History, Afro-Ethnic Studies, Psychology and Sociology)

Spanish

To demonstrate subject matter competence, a person must either pass the appropriate state-approved examination, or complete a state-approved subject matter preparation program. These subject matter preparation programs generally coincide sufficiently with the degree major to make it possible to complete major requirements and subject matter preparation requirements using many of the same courses. But degree programs and subject matter preparation programs serve different purposes; taking one is not a guarantee that you will have satisfied the requirements of the other. For students seeking Single Subject credentials, please discuss the option of test or waiver with the coordinator for your subject matter; some programs required that you complete a waiver program.

Good advising and careful planning are crucial. Transfer students seeking a CSUF subject matter preparation program should seek a transcript evaluation from the Credential Preparation Center, Education Classroom 207, and then see their major department for information on their subject matter preparation program. Specific requirements for each subject matter preparation program were not approved as of catalog press-time.

#### D. SUPPLEMENTARY AUTHORIZATIONS FOR THE BASIC TEACHING CREDENTIALS

It is possible to expand the subject matter authorization a teaching credential initially carries to other subject fields. Please contact the Credential Preparation Center, Education Classroom-207, for further information.

## E. SPECIALIST AND SERVICES CREDENTIALS

CSUF offers several state-approved programs leading to basic specialized credentials. These specialist or services credentials are oriented toward postbaccalaureate course work and coincide with Master's degree programs. Further information about specific requirements for each can be obtained under the appropriate departmental listing in this catalog.

# CSUF offers the following Specialist Credential programs:

- Mild/Moderate Disabilities, to teach persons with mild/moderate disabilities.
   See Department of Special Education, School of Human Development and Community Service.
- Moderate/Severe Disabilities, to teach
  persons with moderate/severe disabilities
  or who have multiple disabilities. See
  Department of Special Education, School
  of Human Development and Community
  Service.
- Early Childhood Special Education, to teach infants, toddlers, preschoolers with or at risk for disabilities or developmental delays ages birth through five years of age and their families.
- 4. Resource Specialist (Certificate of Competency), to serve as a resource specialist in programs serving special education students, their parents and their regular teachers. See Department of

- Special Education, School of Human Development and Community Service.
- Reading and Language Arts Specialist, to teach reading to students of diversified grade and ability levels and to assist all teachers in being better reading teachers.
   See Department of Reading, School of Human Development and Community

In addition CSUF is currently seeking approval for a newly authorized credential, Language Development Specialist, to teach limited or non-English proficient students. See Department of Foreign Language and Literature, School of Humanities and Social Science.

#### CSUF offers the following Services Credential programs:

- Administrative Internship, a field based internship program leading to a preliminary level administrative services credential. See Department of Educational Administration, School of Human Development and Community Service.
- Administrative Services (Preliminary Level), the first step of the new two-step administrative services credential structure, authorizing service as a school site administrator, principal or other administrative officer of a school district. See Department of Educational Administration, School of Human Development and Community Service.
- 3. Administrative Services (Professional Level), the second step of the new two-step administrative services credential structure. See Department of Educational Administration, School of Human Development and Community Service.
- Clinical Rehabilitative (Language, Speech and Hearing), to provide services to students with exceptional needs and/or neurophysical disorders in language, speech, and hearing. See Department of Speech Communication, School of Humanities and Social Sciences.
- Clinical Rehabilitative (Special Class
   Authorization), to provide services to students with severe disorders of language.

   See Department of Speech
   Communication, School of Humanities and Social Sciences.

# ACADEMIC CREDIT COURSES Summer and Winter Summer session and Intersession (the "winter" semester) are great times to squeeze in a few classes to keep on track and graduate on time. Both undergraduate and graduate-level courses.

Summer session and Intersession (the "winter" semester) are great times to squeeze in a few classes to keep on track and graduate on time. Both undergraduate and graduate-level courses are offered, and enrollment is open to the public as well as students admitted to Cal State Fullerton. Courses offered in these programs apply toward residence and graduation require-

ments. Registration may be completed in person, by fax, telephone or mail.

Summer session offers more than 400 academic credit classes and is divided into six sessions that last five to eight weeks. A class schedule for summer session is available in March. Intersession takes place in January, between the fall and spring semesters. More than 100 academic credit classes in a variety of fields are offered and can be completed in less



than a month. A class schedule for Intersession is mailed to all Cal State Fullerton students in mid-November. For more information, contact University Extended Education at www.TakeTheLead.fullerton.edu or (714) 278-2611.

Please note that enrollment in Summer Session or Intersession does not constitute admission to the university.

#### Fall and Spring

People who are not currently admitted to Cal State Fullerton can enroll in most undergraduate and graduate-level courses during the fall and spring semesters through a process called adjunct enrollment (also known as Open University on many campuses). Registration is provided on a space available basis after students admitted to a Cal State Fullerton degree program have registered.

Adjunct enrollment is useful for people who: missed the deadline for admission to the university; have been disqualified; are otherwise ineligible for admission and need to raise their grade point average; need to earn prerequisites for admission to a degree program or certificate; or are matriculated students and need to enroll in GRAD 700. Adjunct enrollment is not available to: students who are currently admitted to a degree or credential program at CSUF, foreign students with scores of less than 500 on the TOEFL examination or its equivalent; or foreign students with an I-20 from another university.

Upon successful completion of a course, students receive academic credit. When students are admitted to the university, the courses will then become part of their degree program transcript. These courses may also be transferred to other institutions. Students can earn up to 24 units toward a baccalaureate degree and six to nine units toward a master's degree through adjunct enrollment. For specifics on graduate degrees, check with the Graduate Programs Office.

## UNIVERSITY EXTENDED EDUCATION OFFICE

Building T-1410 (714) 278-2611

Academic Credit Courses

American Language Program

Professional Continuing Education

Televised Instruction

Community Service Programs

#### Off-site Master's Programs

Two master's programs are available through evening classes in convenient locations. The Master's in Business Administration at the Spectrum offers two tracks, with classes held two nights a week at the Irvine Spectrum. The Masters of Science in Management Science with a concentration in Management Information Systems is offered as the CSUF Garden Grove Center, with classes held one night a week.

#### THE AMERICAN LANGUAGE PROGRAM

The American Language Program (ALP) is a non-credit, intensive English program designed to prepare international students for study in a U.S. college or university. ALP also welcomes individuals who want to improve their English for business, professional or personal reasons. For more information, visit the ALP office in McCarthy Hall, Room 63, or call (714) 278-2909.

# PROFESSIONAL CONTINUING EDUCATION

University Extended Education brings the resources of the university to the community through credit and non-credit programs designed primarily for individuals not currently working toward completion of a university degree. Seminars, workshops and certificate programs serve needs associated with professional continuing education, certification, career advancement and career change. Other programs are designed for personal development and intellectual growth. Extension programs can be designed to meet the specific needs of particular groups or agencies, can be initiated any time during the year and are offered at a variety of locations including the workplace. Telecommunications technologies can deliver extension programs to off-campus sites.

#### Locations

Cal State Fullerton Campus 800 N. State College Blvd.

Cal State Fullerton Garden Grove Center 12901 Euclid Street

#### Certificate Programs

Certificate programs are designed for people who want formal recognition for completing a structured and rigorous course of study for a specific field that is not part of a university degree program. Certificates are awarded when participants complete the course requirements.

Credit Programs:

Gerontology

Production Control and Inventory Practice

Information Resources Management

School Business Management

Technical Writing

Non-credit continuing education programs are available in a variety of areas including:

Applications of Forensic Science to Civil and Criminal Investigations

C Programming Language

C++ Programming

CAD/CAM for Engineers

Commercial Bank Credit Analysis and Loan Extension

Creative Writing

Crime and Intelligence Analysis

Direct Marketing

Disaster Preparedness and Recovery Management

Effective Employee Management

Entrepreneurship

Excellence in Manufacturing Management

Gerontology

Industrial Controls Technology

Industrial Distribution

International Marketing

Logistics Management

Microsoft Access

Mortgage Lending

Object-Oriented Programming

Professional Meeting Planning

Quality Management

Real Estate Appraisal

Senior Fitness Instructor

**UNIX** Operating System

Visual Basic

Windows NT

New credit and non-credit programs are continuously being developed. For current titles contact University Extended Education at www.TakeTheLead.fullerton.edu or (714) 278-2611.

#### **TELEVISED INSTRUCTION**

Modern telecommunications technologies make it possible to receive educational programs from distant locations and to deliver courses to off-campus sites. Resources available to faculty and students include satellite teleconferences, Interactive Televised Instruction, optical fiber and cable delivery systems. Residence credit, extension credit and non-credit courses are delivered to the Mission Viejo Campus, CSUF Garden Grove Center, public schools, business, industry, and the home via Interactive Televised Instruction. Informational programs about CSUF, its faculty, students, staff, and the surrounding community are delivered via The Titan Cable Network.

For more information on Interactive Televised Instruction, contact University Extended Education.

#### COMMUNITY SERVICE PROGRAMS

University Extended Education is committed to public service and community development programs serving the multicultural population of Orange County. For example, Continuing Learning Experience (CLE) is a program for retired and semi-retired persons. The CLE office is located in the Charles L. and Rachael E. Ruby Gerontology Center. Other examples of community service programs include the Children's Summer Art Camp.

# international apportunities and challenges as they enter the UCATION

#### INTRODUCTION

Today's university students face exciting new opportunities and challenges as they enter the 21st century. A study experience in another country is the ideal way to prepare students for the demands of a global economy and to enhance their potential for success in a multicultural working and living environment. Study abroad enables students to see things from another

point of view, which helps them develop analytical and critical thinking skills. Living in another culture adds to understanding of oneself and the world around us. Careerwise, study abroad participants return from their experience with qualifications that distinguish their background from others.

Cal State Fullerton offers a variety of study abroad options.

- International Programs
   ("I.P.") The systemwide
   study abroad program of
   the California State
   University
- Cal State Fullerton
   International Exchange
   Programs
- Programs at other CSU campuses and Independent Study Abroad

The Office of International Education and Exchange, located in University Hall room 244, is where students can go for information and advisement on study abroad. The office is staffed by a professional study abroad adviser and includes a Study Abroad Resource Library, as well as Internet resources. Students are advised to visit the Office of International Education and Exchange as early as possible in the planning process for their study abroad experience. Careful planning will result in selection of the best program for the student and minimize any potential difficulties with transfer credit or financial aid. The Office of International Education and Exchange can be reached at (714) 278-2787 or HYPERLINK http://sa.fullerton.edu/iee/studyabroad.htmlhttp://sa.fullerton.edu/iee/studyabroad.htmlhttp://sa.fullerton.edu/iee/studyabroad.htmlhttp://sa.fullerton.edu/iee/studyabroad.htmlh.

Australia The University of Western Sydney

Canada The Universities of the Province of Quebec (including Université de Montréal, Concordia University, Université Laval, McGill University, Université du Quebec system, Bishop's University, i.a.)

**Denmark** Denmark's International Study Program (the international education affiliate of the University of Copenhagen)



Robert B. Ericksen

**ASSOCIATE DIRECTOR** 

Lay Tuan Tan

STUDY ABROAD ADVISER

Dana Roson

**PROGRAMS OFFERED** 

International Exchange Programs

CSU International Programs

Study Abroad Programs at Other CSU Campuses

Independent Study Abroad

#### France

Institut des Estudes Françaises pour Étudiants Étrangers, Université de Droit, d'Economie et des Sciences d'Aix-Marseille (Aix-en-Provence), Mission interuniversitaire de coordination des échanges francoaméricains, Universités de Paris III, V, VI, VIII, X, XI, XII, XIII

#### Germany

The institutions of higher education in the German Federal State of Baden-Württemberg, including:

Universität Freiburg
Fachhochschule Furtwangen
Universität Heidelberg
Universität Hohenheim
Universität Karlsruhe
Universität Konstanz
Fachhochschule Mannheim
Universität Mannheim
Fachhochschule Nürtingen
Fachhochschule Reutlingen
Berafsakademie Stuttgart
Universität Stuttgart
Musikhochschule Trossingen
Universität Tübingen
Universität Ulm

#### Israel

The Hebrew University of Jerusalem Tel Aviv University

#### Italy

CSU Study Center (Florence) Universitá degli Studi di Firenze La Accademia di Belle Arti di Firenze

#### Japan

Waseda University (Tokyo)

#### Korea

Yonsei University (Seoul)

#### Mexico

Universidad Pedagógica Nacional (Mexico City)

Instituto Technológico y de Superiores de Monterrey, Campus Querétaro

#### New Zealand

Lincoln University (Christchurch) Massey University (Palmerston North)

#### Spain

Universidad Complutense de Madrid Universidad de Granada

#### Sweden

Uppsala Universitet

#### Taiwan

National Chengchi University (Taipei)

#### United Kingdom

Bradford University
Bristol University
Hull University
Kingston University (Greater London)
Sheffield University
University of Wales, Swansea

#### Zimbabwe

University of Zimbabwe (Harare)

# INTERNATIONAL EXCHANGE PROGRAMS

Cal State Fullerton has direct institutional exchange programs with six universities. These exchange programs allow for the exchange of faculty and students for the purposes of teaching, study, research, and for the promotion of intercultural understanding and cooperation.

China - Fudan University

France - University of Paris

Germany - Fachhochschule Nurtingen

Japan - Nanzan University

Mexico - Autonomous University of

Guadalajara

Taiwan - National Sun Yat Sen University United Kingdom - Royal Holloway University

Additional exchange opportunities are under development at the time of catalog publication. Visit the Office of International Education and Exchange for further information.

The cost of participation varies from country to country, but, in general, students pay their own Cal State Fullerton fees, housing, meals, transportation, and incidental expenses. Often, costs are comparable to studying at Cal State Fullerton while living in a nearby apartment. Study abroad costs are kept as low as possible, and students who qualify for financial aid may apply it to their exchange program costs.

Academic advisement before departure is essential. Before going abroad, the student and an academic adviser will complete an "Academic Advisement Form" to identify the Cal State Fullerton credit that will be awarded after completing the study abroad program. Students who plan ahead and work closely with their academic advisors usually get full credit for the classes they take abroad.

The application deadline is February 1 for most programs; October 1 and April 1 for

others. Application forms and further information are available in the Office of International Education and Exchange, University Hall 244.

# THE CSU INTERNATIONAL PROGRAMS ("I.P.")

The International Programs is the systemwide study broad program of the CSU. It is affiliated with over 70 distinguished universities and other institutions of higher education in 16 countries where students can pursue course work for CSU resident credit. Founded in 1963, the International Programs focuses on academic year studies and offers participants an array of study options related to specific degree and career objectives. International Program participants earn resident credit at Cal State Fullerton while pursuing full-time study at a host university or special study center abroad. Programs are available in the following countries:

To qualify for admission to the International Programs, students must have upperdivision or graduate standing at a CSU campus by the time of departure. However, students at the sophomore level may participate in the intensive language acquisition programs in France, Germany and Mexico. California Community College transfer students are eligible to apply directly from their campuses if they also apply for and meet the admission requirements of Cal State Fullerton and have a cumulative grade point average of 2.75 or 3.0, depending on the program for which they apply. Some programs also have language study or other course work prerequisites.

Participants in the International Programs pay most home campus fees in addition to a modest International Programs enrollment fee. Enrollment fees are kept at an affordable level because part of students' costs are supported by the State of California. Costs vary by country, as students are responsible for their own housing, meals, transportation and incidentals. If you qualify for financial aid you may apply it to your year abroad. The Office of International Education and Exchange works very closely with the Office of Financial Aid to maximize students' financial aid opportunities.

For more information, visit the Office of International Education and Exchange, University Hall 244 and review the International Programs website at HYPERLINK http://www.gateway.calstate.edu/csuienet/http://www.gateway.calstate.edu/csuienet/.

The application deadline is February 1 for most programs; May 1 for Southern Hemisphere programs (Australia, New Zealand, and Zimbabwe). Applications are available in the Office of International Education and Exchange, University Hall room 244.

# STUDY ABROAD PROGRAMS AT OTHER CSU CAMPUSES

Cal State Fullerton students may participate in study abroad programs at other CSU campuses. The Blue Book, published by the Office of the Chancellor, is designed to market study abroad programs open to all CSU students. Copies of The Blue Book are available for review in the Office of International Education and Exchange, University Hall, room 244.

#### INDEPENDENT STUDY ABROAD

If none of the aforementioned programs meets a student's needs, another option may be to participate in a program run by a private organization or another university. There are literally thousands of such programs. Reference materials about such opportunities are kept in the Study Abroad Resource Library in the Office of International Education and Exchange, University Hall, room 244. Brochures advertising such opportunities are organized in the library by country, and students are invited to come in, browse through the materials, and take home any brochures that are of interest to them. Credit earned on these programs is subject to the approval of the appropriate academic department for determination of equivalency.

# curricula intorm

**CURRICULA INFORMATION** 

#### **COURSE DESCRIPTIONS**

Course descriptions briefly describe the content or subject matter to be covered and provide additional information on units of credit, the level of instruction (see course numbering code), prerequisites and the type of course (lecture, laboratory, activity, seminar and individually super-

#### COURSE NUMBERING CODE

## Course Descriptions Course Numbering Code Student-to-Student Tutorials Independent Study Cross-Disciplinary Programs Special Major, B.A. Interdisciplinary Studies, M.A. Air Force Reserve Officer Training Corps (AFROTC) Master of Library and Information Science Degree Program

The first number in each course designation is intended to indicate the level of complexity of the course. In addition, the first number also is a rough index of the student's year of study at the university. The following are guidelines for course numbering.

#### 001-099

Courses which carry no credit toward a degree or credential. Generally, developmental, remedial, or pre-college in content.

#### 100-199

Lower-division courses designed primarily for freshman level, but also open to other students. These courses are generally introductory in nature and are usually designed without prerequisites.

#### 200-299

Lower-division courses designed primarily for sophomore level, but also open to other students. Although there is no clear distinction between lower-division courses listed at the 100 or 200 level, there is an inherent assumption that students in these courses have acquired skills appropriate to the second year of university-level work.

#### 300-399

Upper-division courses designed primarily for juniors, but also open to other students. Third year or junior level coursework is likely to emphasize specialization in the disciplines. It is expected that specific prerequisites are used to indicate the necessary competencies required for study at this level. These courses do not give graduate credit unless included on an approved graduate study plan for a specific graduate student. Such a study plan shall include an explicit rationale for the inclusion of said 300-level course(s).

#### 400-499

Upper-division courses designed primarily for seniors, but also open to other students. Prerequisite work is required. Course work is intended to provide depth of understanding or additional focus appropriate to the disciplines. Courses at the 400 level are sufficiently sophisticated for inclusion on graduate study plans.

#### 500-599

Courses designed primarily for graduate students who are enrolled in advanced degree programs. The courses of study are advanced and specialized in nature and require substantial undergraduate preparation. Undergraduate students may enroll if they have reached senior status, have the prerequisites required for entry into the course, and have gained consent of the instructor.

#### 700-701

Course numbers for graduate and postbaccalaureate students (including those seeking a credential) to maintain continuous enrollment during a particular semester, and who are not enrolled in regular courses. These numbers do not represent courses and do not therefore grant credit.

#### 900-999

Courses specifically designed for professional groups seeking vocational improvement or career advancement. Credit for these courses does not apply to undergraduate or graduate degrees or credentials at the university.

An honors courses shall use the letter H. A laboratory course that accompanies another course should use the letter L. A variable topics course shall use the letter T.

A controlled entry course is one which has enrollment requirements in addition to any prerequisite courses. Additional requirements include prior approval of the instructor, special academic advisement, a qualifying exam, a placement test, an audition, a teaching credential, or similar special qualifications.

#### Special Course Numbers

For uniformity, certain types of courses have been listed by all departments and schools with the same numbers: 499 and 599 are used respectively for undergraduate and graduate independent study; 196 or 496 for student-to-student tutorials; 597 for a graduate project; and 598 for a graduate thesis.

#### **Explanation of Course Notations**

Certain notations are uniformly used in the course descriptions in this catalog.

 The figure in parentheses following the course title indicates the number of semester units for the course. Courses offered for varying units are indicated as (1-3) or (3-6).

- A course listing such as Afro-Ethnic Studies 108 (3) (Same as Linguistics 108) indicates that a student taking the course may choose to count it in either of those two disciplines.
- A notation such as (Formerly 433) following the course title and the number of units indicates the same course previously was numbered 433.

#### STUDENT-TO-STUDENT TUTORIALS

The student-to-student tutorial provides a formal way to encourage students to learn through teaching. It also provides tutoring to all students who need and want tutorial assistance.

In those departments which choose to offer such courses, the courses are numbered 196 or 496 and carry one to three units of credit. The prerequisites include a gradepoint average of at least 3.0 and/or consent of the instructor. The tutor and tutee(s) will work in mutually advantageous ways by allowing all involved to delve more carefully and thoroughly into the materials presented in this specific course. One to three students may be tutored by the tutor unless the instructor decides that special circumstances warrant increasing the usual maximum of three tutees. Three hours of work per week are expected for each semester unit of credit, and this work may include, apart from contact hours with tutees, such other activities as: tutorial preparations; consulting with instructors; reporting, analysis and evaluation of the tutorial experiences; and participation in an all-university orientation and evaluation program for tutors. A maximum of three units may be taken each semester. No more than three units of any combination of tutorial courses (196 or 496) may count toward an undergraduate degree program. The course must be taken as an elective and not counted toward general education, major or minor requirements. The course can be taken on a credit/no credit basis by the tutor. Requests for tutors must be initiated by tutees and can be initiated up until the official university census date. Tutors electing to respond to such requests will receive credits at the end of the semester and can register in the course until the official university census date. Both tutors and tutees must submit written reports, analyses and evaluations of their shared tutorial experience to the instructor, and both must participate in an

all-university orientation program as well as in any conference or critique that the instructor of the course may require.

Further information can be obtained from the department in which the student is interested in a student-to-student tutorial.

#### INDEPENDENT STUDY

Under the independent study program, the student may pursue topics or problems of special interest beyond the scope of a regular course under the supervision of a faculty adviser. The work is of a research or creative nature, and normally culminates in a paper, project, comprehensive examination, or performance. Independent study units shall not be granted for teaching duties, administering classes, tutoring students or grading courses; or for internships. For Independent study used on graduate study plans, 300-level courses may not be used as the sole basis for 499 Independent Study. 300- and 400- level coursework may not be used as the sole basis for 599 Independent Study. 100- and 200level courses may not be used as any part of the basis for 499 or 599 Independent Study.

Before registering, the student must get a topic approved by the instructor who will be supervising independent study and by the department chair. Independent study used on a graduate study plan must also be approved by the departmental graduate program adviser.

A student may take no more than six units of independent study at the undergraduate level (299 and 499 numbered courses) in a given semester. No more than nine units of independent study may be applied toward completion of the baccalaureate degree. A graduate student may apply no more than six units of independent study (499 or 599 numbered courses) toward completion of master's degree.

#### **CROSS-DISCIPLINARY PROGRAMS**

A cross-disciplinary program is an endeavor involving two or more existing academic departments which need not be within the same school. Such programs are administered by program councils composed of representatives elected by participating departments. Current programs include: Asian Studies, Minor Asian-American Studies, Minor Environmental Studies, M.S. Gerontology, Minor Interdisciplinary Studies, M.A.

Latin American Studies, B.A.
Latin American Studies, Minor
Liberal Studies, B.A.
Russian and East European Area Studies, B.A.
Social Sciences, M.A.
Special Major, B.A.
Women's Studies, Minor

The program descriptions are located within the departmental section of this catalog.

#### **SPECIAL MAJOR PROGRAMS**

From the total curriculum of the university, students may wish to plan a specially designed program of study that does not duplicate significantly any existing major or concentration. The undergraduate special major and the graduate interdisciplinary studies program provide opportunities for selected students to pursue individualized programs of study leading to a degree when legitimate academic and professional goals can be satisfied by a judicious selection of courses from two or more fields, and when these aims cannot be satisfied by the authorized standard degree majors, double majors, or other available cross-disciplinary programs. The special major and interdisciplinary studies program are designed for exceptional cases of individual students only and provide an opportunity to develop a concentration or specialization outside the framework of existing majors. These programs are not intended as a means of by-passing normal graduation requirements or as a means by which students may graduate who fail to complete the degree major in which they are enrolled.

#### B.A. Special Major

Students desiring to work for a bachelor's degree with a special major should consult with the Office of Academic Advisement.

- Entrance to the special major program is normally at the beginning of the junior year (60 units remaining for graduation).
- The minimum requirement for the major is 48 units. A minimum of 36 upper-division units must be included in the major.
- Although students may include on their study plans, course work in progress and a maximum of 12 units of course work completed prior to the time of filing, approval of these courses is not automatic.
- No more than six units of 499
   (Independent Study) and/or internship course work may be included in the major.

- Neither lower- nor upper-division courses applied to general education breadth requirements will be applicable toward the major.
- 6. At least three units of appropriate course work in methodology shall be included in the student's study plan. Where appropriate this requirement may be waived by the University Curriculum Committee.
- All courses in the major must be taken for a letter grade. A grade-point average of 3.0 in the major is required for graduation.
- Prior to taking any substitute course work, a petition for change of the study plan must be approved by the student's adviser and the University Curriculum Committee.
- 9. A senior thesis shall be written by the student in this program during the semester preceding graduation. This thesis should show scholarly evidence of the merit in the student's choice of an interdisciplinary program. This paper shall be written under the direction of the student's special major adviser and approved by the faculty designated by the departments represented on the student's study plan.

#### M.A. Interdisciplinary Studies

A graduate student desiring to work for a master's degree in interdisciplinary studies should consult with the Office of Graduate Studies and fill out an initial request form available in that office.

- Entrance to the program requires a gradepoint average (GPA) of 3.0 in the undergraduate major and a GPA of 3.0 in the last 60 units of course work.
- The minimum requirement of units for an M.A. in Interdisciplinary Studies is 30 units of which at least half must be graduate courses (500-level).
- Although students may include on their proposed study plan course work in progress or completed prior to the time of filing, approval of these courses is not automatic. No more than nine units of course work taken prior to classified standing can be approved on the program.
- The program may contain no more than six units combined of Independent Study, Project or Thesis.

- 5. All courses on the study plan must be taken for a letter grade and no grade below a C is acceptable on the study plan. Please see the "Graduate Regulations" section in this catalog under "Study Plan" for additional requirements.
- Prior to taking any substitute course work, a petition for change of the study plan must be approved by the student's graduate adviser and graduate committee.
- 7. A Thesis or Project is required for the completion of the program. The completed thesis is filed with the Library; whereas the project is filed with the Office of Graduate Studies.

# AIR FORCE RESERVE OFFICER TRAINING CORPS (AFROTC)

Through arrangements with Loyola Marymount University (LMU) in west Los Angeles, students may participate in the Air Force Reserve Officer Training Corps (AFROTC) program. AFROTC offfers a variety of two, three, and four year scholarships, many of which pay the full costs of tuition, books, and fees. Successful completion of as little as four semesters of AFROTC academic classes and leadership laboratories can lead to a commission as a second lieutenant in the United States Air Force.

For more information, contact the Loyola Marymount University Department of Aerospace Studies (AFROTC) at (310) 338-2770.

# MASTER OF LIBRARY AND INFORMATION SCIENCE DEGREE PROGRAM

Pollak Library (South Wing) 67 (714) 278-2064

The Master of Library and Information
Science (MLIS) degree program is offered on
the Cal State Fullerton campus by San Jose
Sate University's School of Library and
Information Science. Accredited by the
American Library Association in 1969, the
SJSU School of Library and Information
Science (SLIS) was accorded its most recent
accreditation update in January 1993,
making it the only ALA accredited program
in the 23-campus California State University
system.

San Jose State began offering classes at Cal State Fullerton in 1989 and has enjoyed continuous growth since that time. Applicants are screened and admitted by San Jose State even though they plan to take classes through the distance education program at Cal State Fullerton.

The program requires the successful completion of 42 units, and it may be taken in its entirety at Fullerton. In addition to the MLIS, the program also offers an accredited School Library Media Credential, as well as an emphasis in archival studies.

For further information, call MLIS's Cal State Fullerton office at the above number or visit the schoolis Website at http://witloof.sjsu.

#### LIBRARY COURSES

302T Library Research Methods for Specific Majors (1)

Library research methodology and introduction to library resources in special subject areas such as business, education and science.

#### UNIVERSITY STUDIES COURSE

100A,B Introduction to University
Studies (1.2)

Designed for first-time freshmen. Provides support in transition from high school to university study. Introduction to higher education structure and expectations, general education, roles and responsibilities of university students. The seminar can be taken as a 1-unit course in the fall semester (100A) or as a 3-unit, year-long course (100A for 1-unit in the fall and 100B for 2 units in the spring), with a required community-based service learning component in the spring semester.

Extensive reading and writing assignments related to the first year college experience are required.

# faculty and

(Year in parentheses indicates date of appointment as a full-time member of the faculty or administration.)

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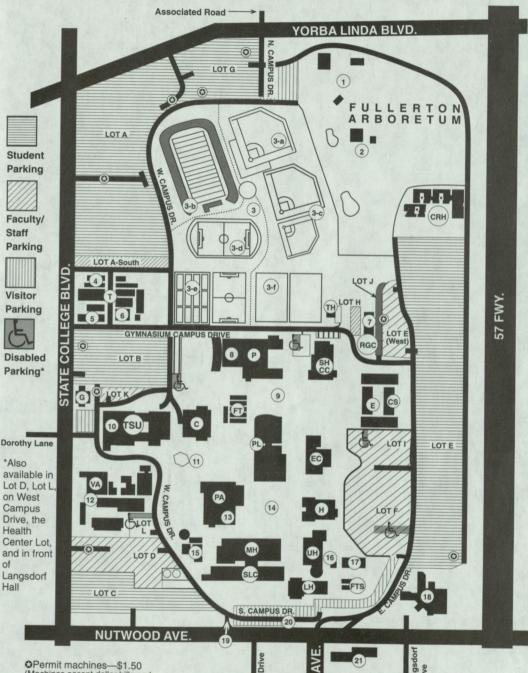
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- MH McCarthy Hall
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- P Physical Education
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- Center SHCC Student Health & Counseling Center
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